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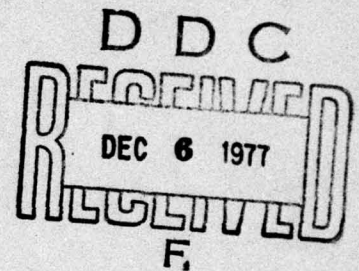
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FOREIGN MILITARY SALES TO ISRAEL

Richard M. O'Connor, Captain, USAF
William E. Schepens, Captain, USAF

LSSR 8-77B

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✓ This thesis summarizes the history of Israel from a military point of view by looking at the major Arab-Israeli wars. The present Israeli armed forces structure, i.e., air force, army, and naval strengths is presented, and the Arab threat which they are intended to counter is analyzed. Following a brief description of the evolution of U.S.-Israeli military aid, is a summary of all U.S. FMS, economic aid, and security supporting agreements to Israel, including repayments and waived payments. Recent world events of a military, economic, political, and social nature which may have an impact on FMS to Israel and on Israel's survival are included. The authors offer conclusions and recommend that future research be made. ←

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FOREIGN MILITARY SALES TO ISRAEL

A Thesis

Presented to the Faculty of the School of Systems and Logistics
of the Air Force Institute of Technology

Air University

In Partial Fulfillment of the Requirements for the
Degree of Master of Science in Logistics Management

By

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Captain, USAF

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September 1977

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This thesis, written by

Captain Richard M. O'Connor

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and approved in an oral examination, has been accepted by the undersigned on behalf of the faculty of the School of Systems and Logistics in partial fulfillment of the requirements for the degree of

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DATE: 7 September 1977

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COMMITTEE CHAIRMAN

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Chapter 1

INTRODUCTION

The United States (U.S.) has extended credit or has granted 11.9 billion dollars in military and economic aid and security supporting assistance to Israel since 1948 (79:22; 82:366; 83:176). The increasingly large amount and nature of this U.S. aid to Israel will be set forth and examined in this research paper.

Statement of the Problem

The information concerning the extensive U.S. financial aid to Israel which is available has limited circulation because of the traditionally sensitive nature of the material. That information which is available is contained in Department of Defense (DoD) documents in tabular form and is normally not accompanied by in-depth background data or other pertinent facts. An example of such a document is Foreign Military Sales and Military Assistance Facts, published annually by the Defense Security Assistance Agency.

A DoD literature search was conducted through the Defense Logistics Studies Information Exchange (DLSIE). This search produced a total of 15 documents related to

military aid to Israel (ISMILAID). Of these 15, five were classified secret, seven were background materials unrelated to sales to Israel, and only three were usable and pertinent to military assistance to Israel. Another search made through the Defense Documentation Center (DDC) produced similar results. The scanty returns produced by these searches underscored the need for a comprehensive source of information on U.S. military sales and assistance to Israel.

One of the reasons that the data on Israel are so difficult to find is because the Military Assistance and Sales Manual (MASM) previously classified the amount of foreign aid and grants which the U.S. provided the countries of the Middle East. One of the first public disclosures of the U.S. financial and military aid to Israel can be found in the House of Representatives' Foreign Assistance and Related Agencies Appropriations for 1974 (74:81). Prior to this date, The Congressional Record deleted the dollar figures and the number of military items sold or given to Israel.

Since 1974, however, the only information which has been declassified has been the total yearly dollar sales to Israel; the specific breakouts are still not divulged in the Record. Therefore, because of

classification and limited circulation, planners, policy makers, and educators do not have a single source document which contains a total, detailed analysis of U.S. aid to Israel.

Purpose of the Study

The purpose of this research is to trace, analyze, and compile into one document, the evolution of U.S. foreign military sales (FMS), credits, grants, and security supporting assistance to Israel. The analysis will include a description of how the items were financed, what prompted the transactions, and the implications of their transfer.

Definition of Terms

Cash Sales--involves either 'cash in advance' payment within a reasonable period not to exceed 120 days after delivery of the article or the rendering of the service, or payments as funds are required to meet progress payments to suppliers under a 'Dependable Undertaking' [87:2].

Credit--Transactions approved on a case-by-case basis by the Departments of State, Treasury, and Defense, which allow repayment of military export sales for periods beyond 120 days after delivery of material or performance of service [87:4].

Foreign Military Sales (FMS)--Include cash sales from stocks of the DoD; procurement for cash sales by the DoD; DoD credit sales, and DoD guaranties covering the private financing of credit sales of defense articles and defense services. [87:7].

Grant Aid--Military assistance rendered under the authority of the FAA [Foreign Assistance Act] for which the United States receives no dollar reimbursement [87:7].

Security Assistance-- . . . the term Security Assistance includes all DoD activities carried out under the authority of the FMSA [Foreign Military Sales Act], or FAA, or related appropriation acts and other related statutory authorities [87:11].

Security Supporting Assistance--Funds used to finance imports of commodities, capital, or technical assistance, provided either as a grant or loan in accordance with terms of a bilateral agreement; counterpart funds thereby generated may be used as budgetary support. Most such funds are used to enable a recipient to devote more of its own resources to defense and security purposes than it otherwise could do without serious economic or political consequences [87:11].

Scope and Limitations

This study will present all FMS made to Israel since 1948; however, the emphasis will be on those sales which have taken place since 1967. In addition to the general category of military sales, the following aspects of foreign aid will be explained: (1) grants, to include economic aid, (2) credits, and (3) security supporting assistance.

Those portions of Israel's history which deal with her military development are presented as background to FMS. Although the historical portion emphasizes the events since 1948, certain key events prior to 1948 have been noted.

This study does not cover all aspects of U.S.-Israeli relations, especially in the field of politics. No judgmental evaluations are made as to the course of U.S. policy in the Middle East, and no classified information is presented.

The research is limited to assimilating known information on U.S. foreign aid to Israel and in putting that information in proper perspective through a comprehensive research of pertinent background data.

Justification

FMS became increasingly significant to U.S. foreign policy during and since President Richard M. Nixon's administration. Under the Nixon Doctrine:

The United States will keep all its treaty commitments. We shall provide a shield if a nuclear power threatens the freedom of a nation allied with us, or of a nation whose survival we consider vital to our security and the security of the region as a whole.

In cases involving other types of aggression we shall furnish military and economic assistance when requested and as appropriate. But we shall look to the nation directly threatened to assume the primary responsibility of providing the manpower for its defense [73:12].

After the institutionalization of the Nixon Doctrine, FMS grew from \$3.3 billion in Fiscal Year (FY) 1972 to over \$9 billion in FY1975 (13:69). The Middle East received the bulk of the increase.

Of the total amount of \$8.2 billion worth of weapons sold abroad in 1974, over \$6.5 billion went to countries located in the volatile Mideast region No one can say for sure what impact this massive and continuing infusion of arms will have in this area of the world . . . [but] . . . clearly foreign military sales have become a major instrument in U.S. foreign policy [and] . . . The providing of weapons or defense services to foreign countries represents an important U.S. commitment which can lead to greater and greater U.S. involvement [83:58-59].

The portion of military sales in the Middle East which went to Israel in 1974 was \$2.4 billion (18:12). Additionally, from October 1973 to October 1976, the U.S. provided over \$5 billion in funds for the purchase of military items by Israel (20:448).

Secretary of State Henry Kissinger stated that U.S. support of Israel is substantial and it:

. . . directly affects matters of vital national importance. It is a central part of our efforts to help achieve progress towards peace. We have a historical and moral commitment to Israel. We have important concerns in the Arab world. Perpetual crisis in the Middle East would severely strain our relations with our most important allies. And upheaval in the Middle East jeopardizes the world's hopes for economic recovery and increases the prospect of direct U.S.-Soviet confrontation. For all these reasons, our aid request is a prudent investment in peace [82:244].

On October 30, 1975, President Gerald R. Ford further underscored the importance of the U.S. commitment to Israel in the following message sent to the 94th Congress:

The Security Assistance Program I am transmitting to Congress is heavily weighted with requirements to sustain the peace in the Middle East. Fully 70 percent of the program for fiscal year 1976 is to be concentrated in this region For Israel, \$740 million in security supporting assistance and \$1,500 million in military credits. Israel's ability to defend herself and to relieve some of the burdens of her defense reduces the prospect of new conflict in the Middle East [82:250].

Support for Israel was reiterated by President James E. Carter shortly after taking office when he stated that the U.S. must:

. . . make sure that Israel has adequate means to protect themselves without military involvement of the United States. I have no objection about this arrangement. I'm proud of it. And it will be permanent as long as I'm in office [55:706].

The preceding remarks from the highest authorities who formulate U.S. foreign policy, emphasize the importance of military sales to the Middle East and in particular to Israel.

Research Questions

The overall question which this research will attempt to answer is: What has been the U.S. commitment to Israel especially in terms of FMS, economic aid, and security supporting assistance. In the course of answering this primary research question, several other research questions will be addressed. These questions are:

(1) Under what historical context did FMS to Israel develop? (2) What are Israel's force structure and defense strategies and how do these relate to FMS? (3) How did the U.S. FMS program to Israel evolve and what has been its annual value? (4) What is the future of U.S. security assistance to Israel?

Procedures

Since Israel has been prominent in the news, current information is readily available in various journals, newspapers, periodicals, and books. These documents were the primary sources of information for this study. Since this study is meant to provide a comprehensive source document on FMS to Israel, a synthesis of the published and unpublished material on the subject was considered to be the best approach. Classified documents were not used as sources. Much of the information in this study was extracted from The Congressional Record.

The DoD and military regulations which govern the sale of military goods were often consulted for appropriate guidance. However, in arriving at the proper interpretation of the regulations and manuals the authors are indebted to the Air Force Acquisitions Logistics Division/Directorate of Mid-East Programs. Interviews

with personnel of that division also provided added insight into the business aspects of military sales.

Other interviews were conducted with the following personnel: members of the Air Force Acquisitions Logistics Division/Directorate of Sales Negotiations, the Israeli liaison to the Air Force Logistics Command, the country managers from the Defense Security Assistance Agency (DSAA), and DoD's International Security Assistance Division, and various Middle East experts who work for research institutions in Washington, D.C.

Some aspects of the U.S. relationship with Israel are considered to be sensitive and highly controversial. This study will avoid those areas. The authors will limit themselves to answering the specific research questions which precede this section. The authors will also draw their own conclusions regarding FMS to Israel. These conclusions will represent only the authors' point of view and will not necessarily reflect the policy of the Department of the Air Force, the DoD, or the State Department.

This study should synthesize all pertinent information on FMS to Israel through FY 1977, and in some cases through FY 1978. Information in this study will be current as of 1 August 1977 for purposes of meeting

an academic schedule. Therefore, the final document can maintain its currency only through periodic additions and expansions, where appropriate. For the moment, this study should adequately fill the gap with which academicians and logisticians are confronted when they have a need for information concerning FMS to Israel.

FMS Regulatory Documents

An understanding of FMS to Israel is not possible without some knowledge of the regulations that govern FMS. Therefore, this section will briefly summarize the pertinent instruments which govern the sale of arms and services to foreign countries.

The primary congressional legislation that controls the sale of U.S. arms to foreign countries is the Arms Export Control Act, hereafter referred to as the Act. It was approved in 1968 and has been amended on several occasions since then. The most recent changes to the Act were incorporated in the International Security Assistance and Arms Export Control Act of 1976 which also changed the title of the Act from the Foreign Military Sales Act (FMSA) to the present one (72:245). The Act states that defense articles and defense services shall be sold to friendly countries:

. . . solely for internal security, for legitimate self-defense, to permit the recipient country to participate in regional or collective arrangements or measures consistent with the Charter of the United Nations, or otherwise to permit the recipient country to participate in collective measures requested by the United Nations for the purpose of maintaining or restoring international peace and security, or for the purpose of enabling foreign military forces in less developed friendly countries to construct public works and to engage in other activities helpful to the economic and social development of such friendly countries [72:250].

In this same section the Act prohibits the sale of sophisticated weapons, such as missile systems and jet aircraft for military purposes, to any underdeveloped country. And, although Israel is considered an underdeveloped country, it is excluded specifically from this provision (72:251).

The Act also specifies that defense articles or defense services shall not be sold to any country or international organization, unless:

(1) the President finds that the furnishing of defense services to such country or international organization will strengthen the security of the United States and promote world peace; (2) the country or international organization shall have agreed not to transfer title to, or possession of, any defense article or related training or other defense service so furnished to it to anyone not an officer, employee, or agent of that country or international organization and not to use or permit the use of such article or related training or other defense service for purposes other than those for which furnished unless the consent of the President has first been obtained; (3) the

country or international organization shall have agreed that it will maintain the security of such article and will provide substantially the same degree of security protection afforded to such article by the United States Government; and (4) the country or international organization is otherwise eligible to purchase defense articles or defense services [72:247-248].

The Act makes provisions for the President to authorize credit sales to friendly countries on terms requiring the payment to the United States Government in U.S. dollars of:

(1) the value of such articles or services within a period not to exceed twelve years after the delivery of such articles or the rendering of such services; and (2) interest on the unpaid balance of that obligation for payment of the value of such articles or services, at a rate equivalent to the current average interest rate, as of the last day of the month preceding the financing of such procurement, that the United States Government pays on outstanding marketable obligations of comparable maturity, unless the President certifies to Congress that the national interest requires a lesser rate of interest and states in the certification the lesser rate so required and the justification therefor [72:256].

The Act is expanded and clarified in the Military Assistance and Sales Manual (MASM), a DoD manual that provides

. . . in a single volume information and instructions needed at all levels within the Department of Defense to carry out responsibilities of the Secretary of Defense for administering U.S. Military Assistance and Foreign Military Sales Programs and related activities [87:FWD].

It is in the MASM that the countries eligible under the provisions of the Act are actually listed by name. Israel is included in Table A-1 of Chapter A (MASM) as an eligible country to purchase defense articles and defense services (87:A-2).

Regarding the specific restrictions of the Act on credit sales, the MASM points out that "Credit assistance helps to facilitate this transition to greater national self-reliance from grant aid to sales [87:E-1]." It also emphasizes that the President has the authority to waive most of the restrictions and limitations of the Act if " . . . he determines it would be important to the security of the United States [87:B-1--B-4]." However, exceptions " . . . will be made only after consultation among State, Treasury, and Defense [87:E-3]."

The MASM and the Act should be consulted for more detailed and specific information regarding the restrictions on FMS. (See Appendix A for a list of restrictions and controls as summarized in the MASM.)

Plan of Presentation

The data on FMS to Israel are largely of a quantitative nature and accessible through U.S. Government documents. However, to put that data into proper

perspective regarding its origins, its escalation, its purpose, and its repayment, many factors had to be considered. Those factors in addition to the basic FMS data have been organized in this thesis as follows:

Chapter 2. Summarizes the history of Israel from a military point of view by looking at the major Arab-Israeli wars. Additionally, the geography, culture, and economy of Israel are included.

Chapter 3. Lists the present Israeli armed forces structure, i.e., air force, army, and naval strengths, and the threat which they are intended to counter.

Chapter 4. Contains a summary of all U.S. FMS, economic aid, and security supporting arrangements to Israel.

Chapter 5. Summarizes the recent world events through 1 August 1977, of a military, economic, political, and social nature which may impact on FMS to Israel and on Israel's survival.

Chapter 6. Addresses the research questions and the authors' conclusions drawn from the information in the preceding chapters.

Chapter 2

BACKGROUND

An analysis of FMS to Israel would not be complete without a review of the factors which have caused Israel to allocate a disproportionate share of its limited resources to a posture of military readiness. The fact that Israel was created from conflict and continues to exist in conflict with its Arab neighbors, demands that the nature of the continuing conflict be explored so that the volume of security assistance going to Israel can be put into proper perspective. This chapter will address the geographic, social, historical, and economic factors that have impacted on Israel's evolution.

Geography

Israel is located at the eastern end of the Mediterranean Sea between Lebanon, Egypt, Syria, and Jordan (see Figure 1). The total area of Israel, excluding the occupied territories, is about the same as that of the state of New Jersey (88:1).

Israel is physically divided into the following regions: the coastal plains, the Jordan border area, the central hills, and the Negev Desert. The coastal

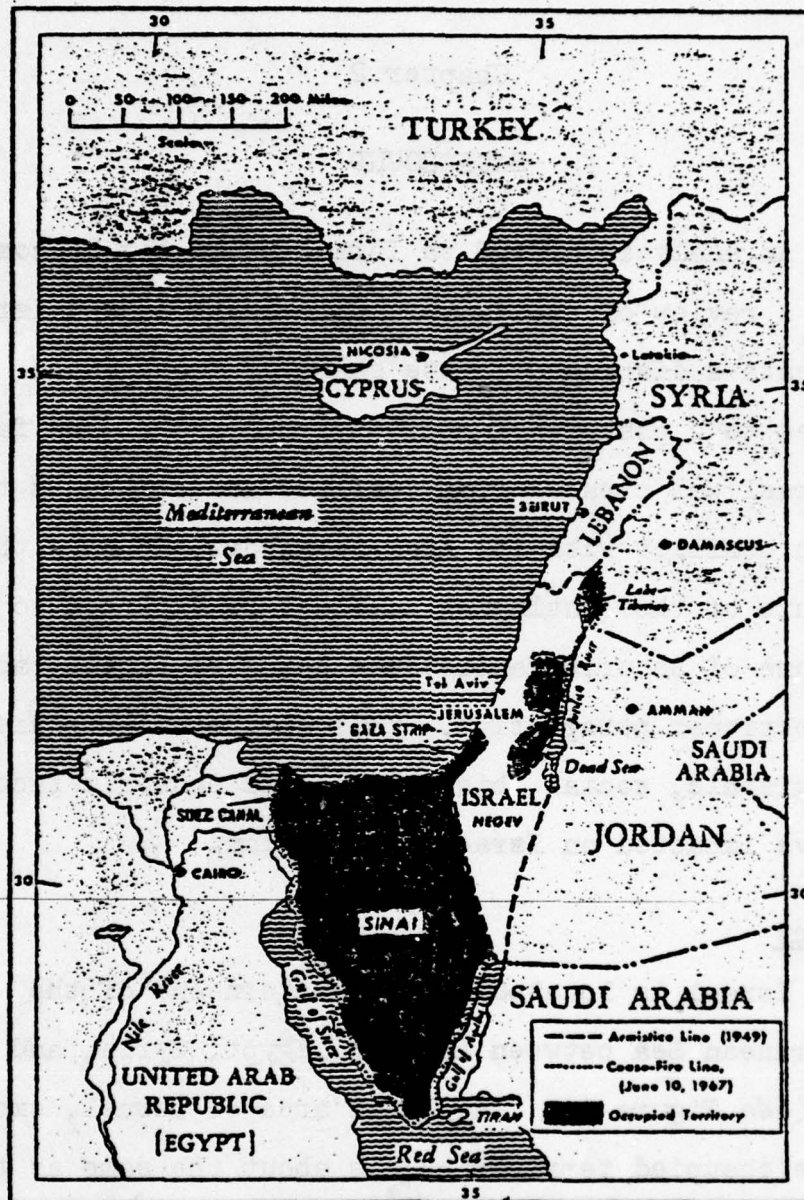


Figure 1

Geographic Location of Israel (61:xvi)

Source: Area Handbook for Israel by Harvey H. Smith and others, 1970.

plains, which are the most populous, primarily yield citrus fruits. The area along the Jordan border is rich in minerals. The central hills produce olives, tobacco, and most of Israel's agricultural needs. The Negev Desert, which comprises more than one-half of Israel's territory, contains some petroleum and mining (36:525).

Figure 2 shows a more comprehensive view of Israel's agriculture, industry, and resources.

Society and Government

Israel has a primarily urban population of 3,124,000 according to the latest United Nations census taken on 20 May 1972 and which included East Jerusalem and Israeli residents in certain other territories under occupation since 1967 (63:70). However, the Israeli government estimates the 1975 population for the pre-1967 territory to be 3,410,000 (90:546). The principal commercial city is Tel-Aviv-Yafo with a population of 362,900 (28:2648).

The government of Israel is a parliamentary democracy which is headed by the Prime Minister. The head of state is the President. An elected parliament, the Knesset, is the highest political power in the country and is located in the capital city of Jerusalem (37:3880).

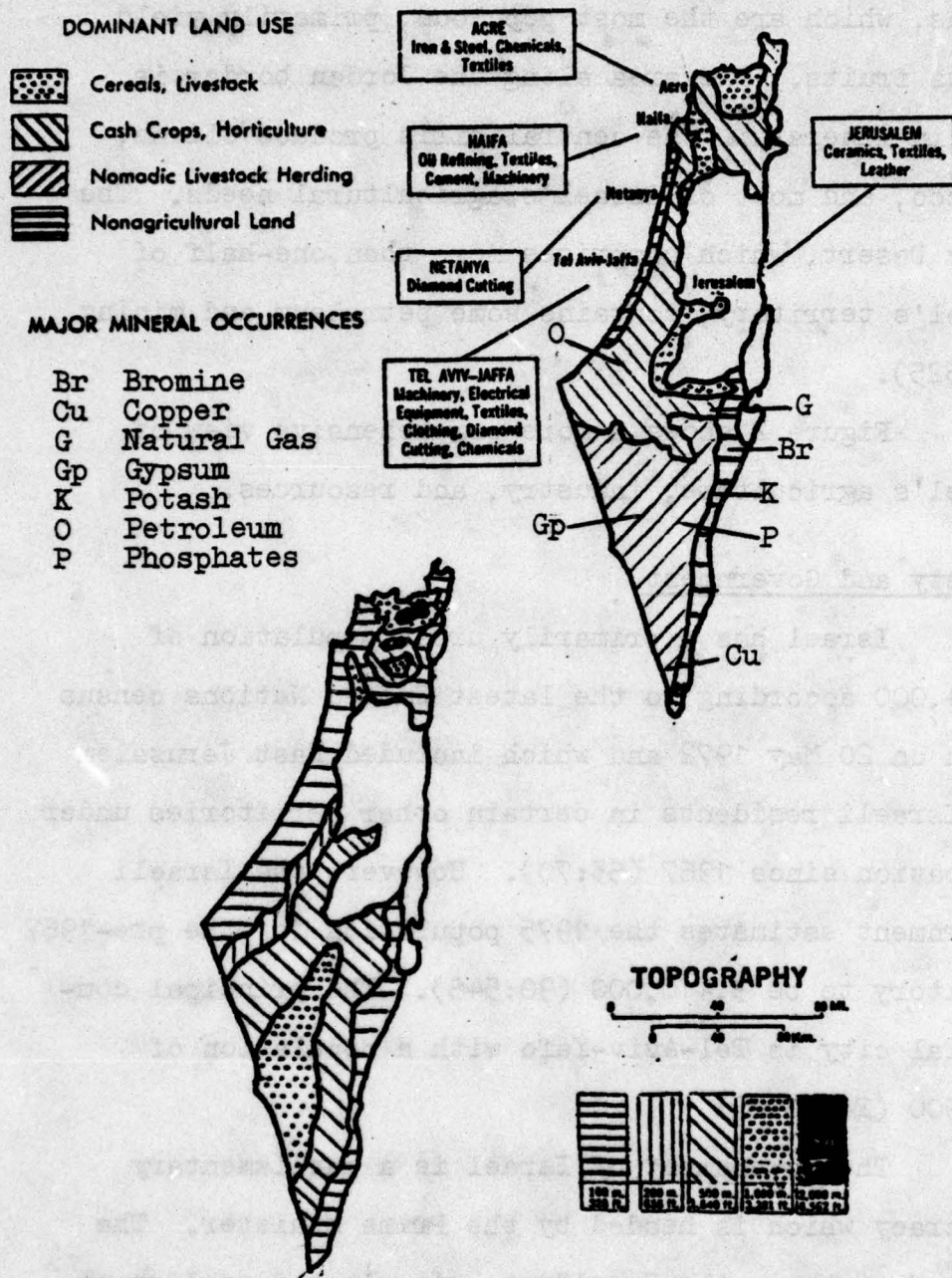


Figure 2

The Agriculture, Industry, and Natural Resources of Israel (36:526f)

Source: The Encyclopedia Americana, 1976.

In Israel the state provides the working force with old age, disability, and survivor's pensions in addition to maternity benefits and subsidies for children. Additionally, education is compulsory for those between the ages of five and thirteen years (36:3880).

The benefits of the Jewish state are shared equally by the Arab population (62:83).

History

The history of Israel covers a span of over 35 centuries. Some aspects of the first 34 centuries will be mentioned here; however, the emphasis will be on Israel's history since independence. This historical narrative will be developed through a summary of Israel's five wars with the Arab states as they occurred within six historical periods.

Pre-1880. The Bible has been the principal source of the first one-thousand years of Jewish history and in it have been recounted the settlement efforts of Moses, Joshua, Saul, David, and Solomon in the land of Israel (62:24-25).

The first Kingdom of Israel was established by Saul in the year 1020 Before Christ (B.C.) (61:30-31). The Kingdom came to an end in 722 B.C. after being

conquered by the Assyrians. After that the region was ruled for hundreds of years by a series of different conquerors including the Persians, the Greeks, the Romans, the Arabs, and the Turks. It was the Romans who gave that area the name Palestine, after the Philistines, an Aegean people who had vanished previously (62:27-29). Palestine entered the 19th century as a part of the Ottoman Empire, which had ruled it since 1516 (62:29).

1880-1948. The concept of creating a separate Jewish homeland in Palestine took hold in the 19th century and became known as Zionism. That concept began acquiring reality and momentum in 1882 with the advent of the First Aliyah¹ which lasted until 1903 and which accounted for between 20,000 and 30,000 immigrants into Palestine (61:57). The area had only had a Jewish population of between 20,000 and 25,000 in 1880 (60:10). In 1896, Theodor Herzl, a young journalist, published Der Judenstaat (The Jewish State) in which he called for the creation of a separate Jewish state (59:36-64). Through his publication, Herzl became the leader of the Jewish movement and was then able to convene the First Zionist

¹Aliyah: literally . . . ascent, but in actuality it referred to a return to the land (62:35).

Congress which founded the World Zionist Organization in Basel, Switzerland, on August 27, 1897 (61:37). Five other congresses were convened before Herzl died in 1904. Herzl's work was continued through the World Zionist Organization which systematically promoted Jewish settlement in Palestine in the years that followed (59:63-88).

The Second Aliyah occurred between 1904 and 1914 during which 35,000 to 40,000 Jews immigrated to Palestine (61:57). Further immigration was curtailed by the outbreak of World War I (WWI). By the end of WWI, the region of the fertile crescent which included Palestine had been taken away from the Ottoman Turks and divided into mandates by the League of Nations and entrusted to Great Britain and France (6:19).

Another outcome of WWI was the first international recognition of the Jewish right to a national homeland. On November 2, 1917, Arthur James Balfour, then Foreign Secretary of Great Britain, made a declaration in the form of a letter to Lord Rothschild, President of the British Zionist Federation, in which he said:

His Majesty's Government view with favour the establishment in Palestine of a national home for the Jewish people, and will use their best endeavours to facilitate the achievement of this object, it being clearly understood that nothing shall be done which may prejudice the civil and religious rights of existing non-Jewish

communities in Palestine, or the rights and political status enjoyed by Jews in any other country [59:109].

The wording of the Balfour Declaration became the source of widely varied interpretations and many disagreements between Arabs and Jews. The main problem stemmed from the Jewish interpretation of the words "national home" as meaning a sovereign Jewish state while the Arabs interpreted them as meaning an autonomous Jewish community within a larger Arab state (61:40-41).

The World Zionist Organization was then allowed to represent the interests of the Jews trying to develop a national homeland in the mandate and the Third Aliyah was institutionalized (1919-1923) during which 35,200 Jewish immigrants arrived in Palestine (61:41-57). The Arabs were opposed to the special recognition given to the Jews who constituted only about ten percent of the population of Palestine at the time, while the Arab people in the area were referred to as "the other section" (61:41). The Arabs felt that they had a stronger claim to the whole area since they had occupied it continuously since the 7th century as the majority of the population (61:41).

Winston Churchill, then Colonial Secretary, carved out the Kingdom of Transjordan in 1922 from 80

percent of the Palestine area as a separate British Mandate (61:43) (See Figure 3). This action did not placate the Arabs or did it improve the Jewish position. However, Jewish immigration into the area continued via the Fourth Aliyah (1924-1931) and the Fifth Aliyah (1932-1939) which increased the population by 247,700 and 118,300, respectively (61:57).

During World War II (WWII) both the Arabs and the Jews in the Middle East joined with the allies in opposition to the Axis powers. Soon after that conflict, in 1946, Great Britain granted Transjordan independence and attempted to resolve the Arab/Jewish problem in the area. However, emotions had been running high and neither Arabs nor Jews found any of Great Britain's proposals acceptable so the issue was turned over to the newly formed United Nations (U.N.) (59:276).

The U.N. solution to the Arab/Jewish conflict consisted of partitioning the British Mandate into separate Jewish and Arab states, as shown in Figure 4 (6:19-20). The British authorities finally decided to terminate the mandate as of May 15, 1948, at which time the U.N. partition plan would go into effect. The plan was opposed by both the British and the Arabs. Nonetheless, all sides resigned themselves to its eventuality;

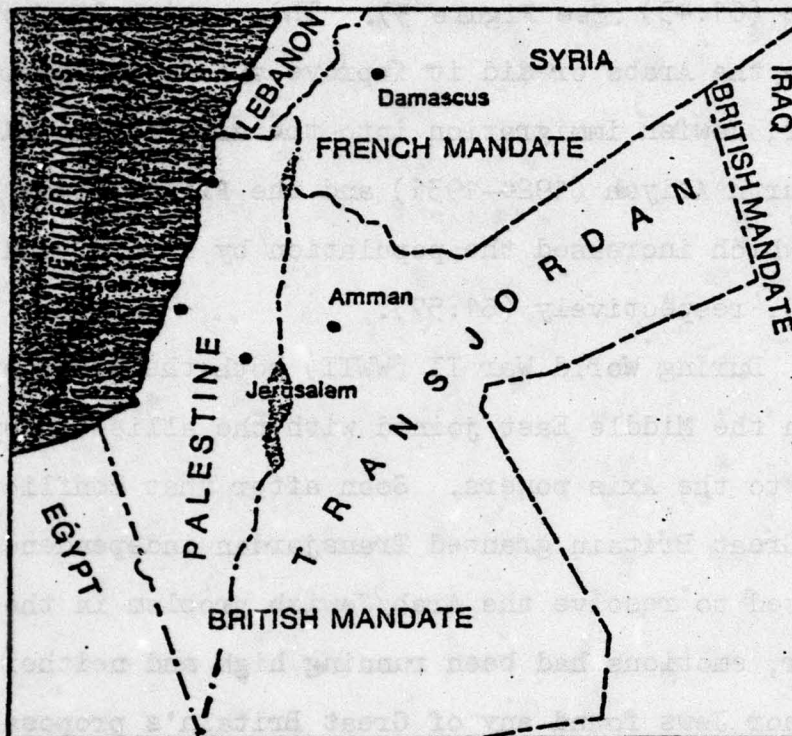


Figure 3

The British Mandate, 1922 (6:19)

Source: Myths and Facts 1976: A Concise Record of the Arab-Israel Conflict by Wolf I. Blitzler, ed., 1976.



Figure 4

The UN Partition Plan, 1947 (2:20)

Source: Myths and Facts 1976: A Concise Record of the Arab-Israel Conflict by Wolf I. Blitzer, ed., 1976.

and both Arabs and Jews continued to arm themselves in preparation for the upcoming struggle that was expected to take place once the mandate was terminated (59:243-306).

1948-1956. Israel proclaimed independence on May 14, 1948 just hours before Great Britain terminated the mandate. The President of the U.S., Harry S. Truman, recognized the new state of Israel that same day (59:308-312). By midafternoon Israel had been invaded by regular armed forces of Egypt, Iraq, Jordan, Syria, and Lebanon, and by volunteer elements from Saudi Arabia, Yemen, and Lybia (61:5). The War of Independence had begun, and after some initial Arab victories, the Jews stabilized the fighting along those frontiers where the conflict ended in 1949 (See Figure 5). The war ended as a military stalemate, but politically, Israel had preserved its separate identity. Even so, the Arabs refused to recognize Israel as a sovereign state. Israel lost about one percent of its total population in 1948 (6:23-26). However, by 1951, Israel had increased its population through immigration to 1.3 million inhabitants (35:1-4).

Guerrilla skirmishes between Egypt and Israel persisted after the War of Independence and in 1955 Egypt began purchasing arms from the Soviet Union in preparation for a larger scale conflict (6:41).

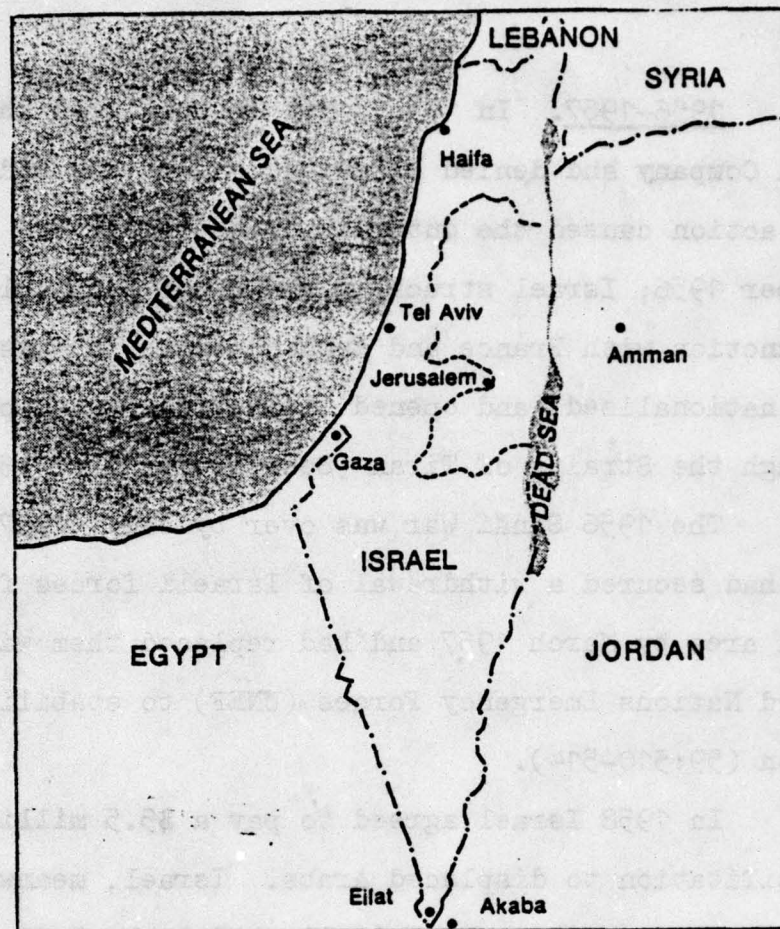


Figure 5

The Armistice Demarcation Lines, 1949 (2:26)

Source: Myths and Facts 1976: A Concise Record of the Arab-Israel Conflict by Wolf I. Blitzler, ed., 1976

1956-1967. In 1956 Egypt nationalized the Suez Canal Company and denied Israel access to the Red Sea. This action caused the outbreak of the Sinai War in October 1956; Israel struck in the Sinai Peninsula in conjunction with France and England whose interests had been nationalized, and opened the Red Sea to shipping through the Straits of Tiran (See Figure 1) (61:6).

The 1956 Sinai War was over by early 1957. The U.N. had secured a withdrawal of Israeli forces from the Sinai area by March 1957 and had replaced them with United Nations Emergency Forces (UNEF) to stabilize the region (59:510-514).

In 1958 Israel agreed to pay a \$5.5 million rehabilitation to displaced Arabs. Israel, meanwhile, continued to develop economically and technologically; by 1959 it had a Gross National Product (GNP) of \$1.96 billion; a dramatic rise from the \$960 million it had had in 1951. Israel also launched its first rocket with the aid of France in 1961 (35:4-5).

The uncertain peace between Israel and the Arab states began to deteriorate in 1964 when the newly formed Palestine Liberation Organization (PLO) began launching terrorist attacks against Israel (6:29-32).

1967-1973. The UNEF withdrew from the 1957 truce lines on May 19, 1967 at the request of President Nasser of Egypt. President Nasser then closed the Gulf of Aqaba to Israel on May 21, 1967. At that time, 90 percent of Israel's consumable oil came through the Gulf. Full scale war finally erupted on June 5, 1967, when Israel launched a pre-emptive attack on Egypt, Jordan, and Syria (35:15-20).

The war was over within six days. Israeli forces captured the Golan Heights in southwestern Syria, the Sinai Peninsula, the Gaza Strip, and that part of Jordan west of the Jordan River now referred to as the West Bank (61:6). The Six-Day War increased Israel's geographic area fourfold (See Figure 1) (56:5). However, the war cost Israel \$750 million and caused France to stop all military sales. This was a serious blow because France had been Israel's chief source of military equipment up until this time (35:15-20).

In October 1968, increased hostilities along the Suez resulted in a war of attrition between Egypt and Israel. This third Arab-Israeli war consisted of numerous border forays conducted by commandoes from both Egypt and Israel, of artillery exchanges from their respective emplacements, and of numerous aerial

encounters. The losses were high: Israel, 3,000 and Egypt, 10,000 between 1967 and 1970. The U.S. finally secured a truce in 1970. Despite the truce, border clashes continued almost daily through 1973 (59:689-697).

1973-present. On October 6, 1973, Egypt and Syria launched a surprise attack on Israel (6:43). After Israel had halted the initially successful advances by the Arabs, the war settled into a protracted conflict that seriously depleted Israel's war reserves. To prevent the collapse of Israel, the U.S. instituted a massive re-supply that delivered between 700 to 800 tons of military supplies a day and resulted in a total supply of \$825 million worth of equipment in the first 12 days of the conflict (35:83). The 1973 Yom Kippur War ended on October 24, 1973.

The 1973 war reduced Israel's monetary reserves and was the most costly of Israel's conflicts. Israeli defense spending reached \$250 million per day during the conflict and eventually cost a total of \$3 billion (35:83).

The separation-of-forces agreement after the war resulted in the establishment of buffer zones along the frontiers between Israel and Syria, and Israel and Egypt

(see Figures 6 and 7). Furthermore, the U.S. agreed to man a group of auxiliary detection stations in the strategic passes in the Sinai between Israel and Egypt " . . . to provide tactical early warning and to verify access . . . " to both Israel and Egypt (59:820-821). Additionally, President Gerald R. Ford agreed to replace all weapons which Israel lost in the 1973 war (35:90). The U.S. also stated that:

. . . in the event of any future threat to Middle Eastern peace either by Egypt or by an 'outside power', the United States would consult closely with Israel about the measures to be taken [59:822].

One provision of the pact which remains clouded concerns a U.S. guarantee to make available for purchase to Israel all of its oil requirements in the event of an embargo. The issue centers on whether the U.S. has committed itself to delivering the oil with the U.S. Navy if necessary. The use of U.S. naval vessels, however, was denied by the Under Secretary of State for Political Affairs in 1975, Joseph J. Sisco (81:25).

Since 1973 no major conflicts have erupted in the Middle East and as of this writing (1 August 1977), Israel and the Arab states have been taking steps toward meeting in Geneva to discuss long-term peace negotiations (23:19).

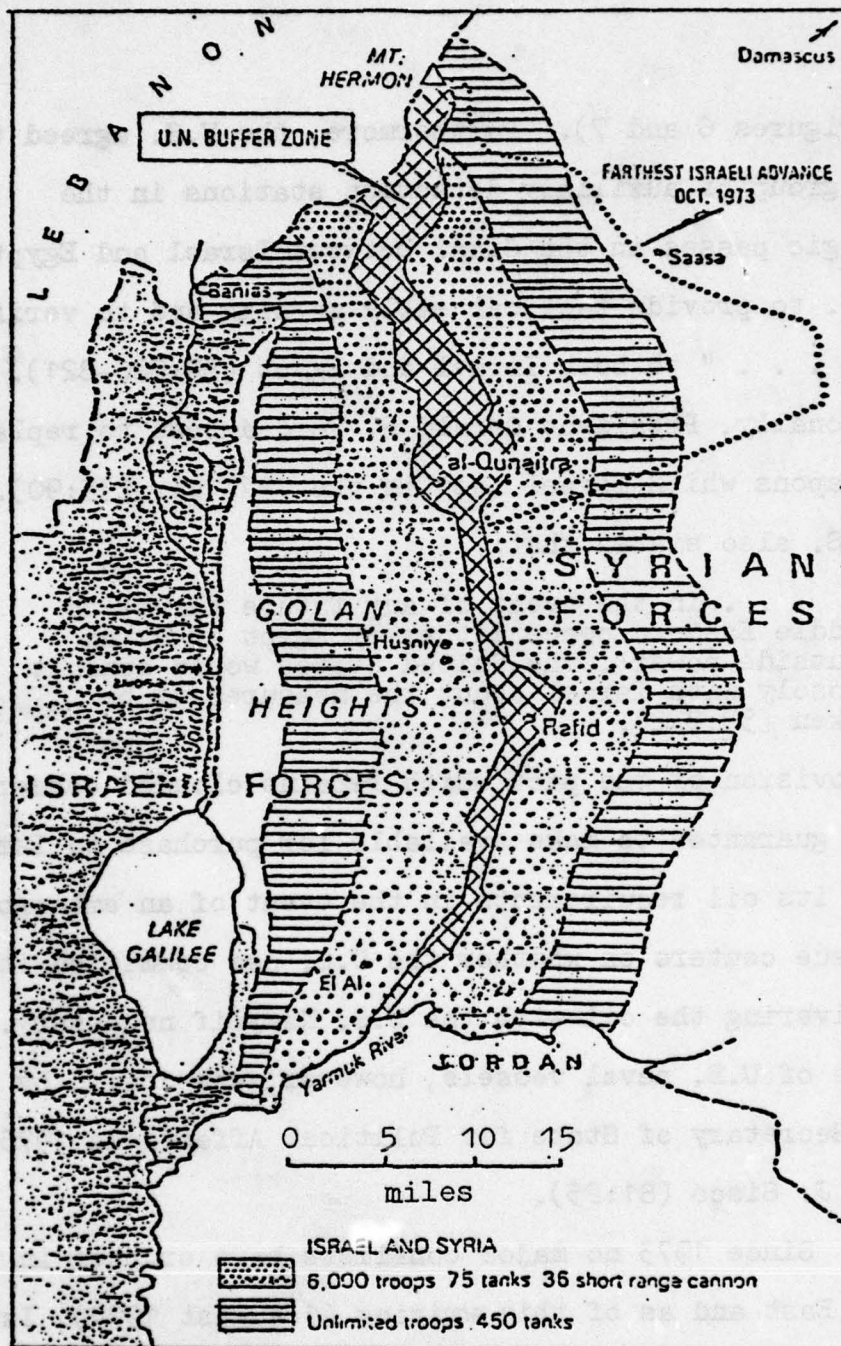


Figure 6

Israeli-Syrian Separation-of-Forces Agreement
May 31, 1974 (59:800)

Source: A History of Israel by Howard M. Sachar, 1976.

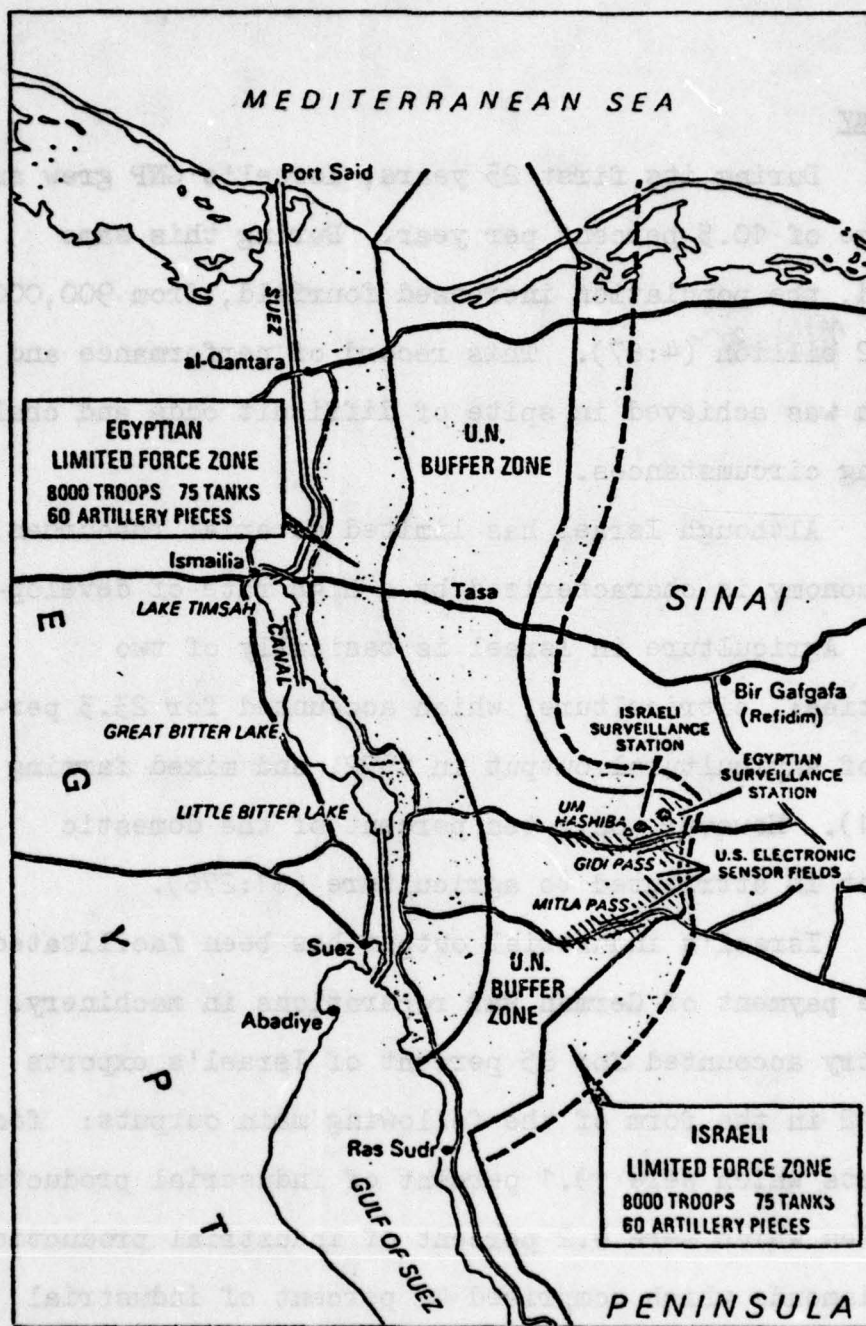


Figure 7

Israeli-Egyptian Separation-of-Forces Agreement
September 4, 1975 (59:823)

Source: A History of Israel by Howard M. Sachar, 1976.

Economy

During its first 25 years, Israel's GNP grew an average of 10.5 percent per year. During this same period, the population increased fourfold, from 900,000 to 3.2 ^{million} ~~billion~~ (4:67). This record of performance and growth was achieved in spite of difficult odds and challenging circumstances.

Although Israel has limited material resources, its economy is characterized by a high rate of development. Agriculture in Israel is basically of two varieties: citriculture, which accounted for 23.3 percent of agricultural output in 1972, and mixed farming (33:21). However, only ten percent of the domestic product is attributed to agriculture (61:276).

Israel's industrial output has been facilitated by the payment of German war reparations in machinery. Industry accounted for 85 percent of Israel's exports in 1972 in the form of the following main outputs: food products which were 19.1 percent of industrial production, textiles which were 9.2 percent of industrial production, and diamonds which comprised 42 percent of industrial exports (33:59,62,140). Diamonds also accounted for 35 percent of all exports in 1972 but they are imported in a rough state and polished in Israel before being exported,

so their effect on the economy is less because the value they add to the economy is a function of their import cost (33:139-140).

As a result of massive immigration, food, jobs, and social necessities have had to be expanded rapidly. An entire new infra-structure has had to be created while still allocating a large portion of the country's economic resources to defense (4:67).

A historical analysis of Israel's economy results in a breakout into five distinct subperiods:

1. 1948-1960 were the founding years in which Israel experienced many instabilities and fluctuations.

2. 1960-1964 were years of full employment, economic growth, increasing inflation and trade deficits (import surpluses).

3. 1965-1967 was a period of recession, unemployment and a reduction in inflation.

4. 1968-1973 were years of revival, full employment and growth, together with inflation and excessively high trade deficits.

5. 1973-present was and still is a time of rising inflation and increasing trade deficits (4:129).

By 1975, the balance of payments which had previously been in the black, became a deficit of \$3.5 billion,

the national debt rose to \$6 billion, and the cost of living increased 17 percent. The defense budget grew from \$850 million to \$3.5 billion between 1973 and 1975 (43:86). Because of the "October War" of 1973, the economic growth of Israel changed drastically. The Israeli economy simply could not support the military arms purchased to replace the losses incurred during that war. As of 1975, 40 percent of the total budget was being allocated to defense (75:172).

Israel's total foreign debt was \$6,968 million and its trade and services account deficit was \$4 billion on June 30, 1975 (76:261). Its past economic growth had ebbed. However, Israel's economic performance had been impressive (See Table 1).

Summary

Israel has had a long and turbulent history. Many of the issues that are being debated in the Middle East are rooted in the past. Despite Israel's claim to Palestine because of its "Biblical" heritage, the Arabs maintain that the area belongs to them based on their own historical ties to it. This territorial dispute has resulted in five Arab-Israeli wars since 1948. The wars have been influenced by the topography of the region and

by the position of Israel relative to the Arab states.
 In the next chapter the effect on Israel's armed forces
 strategy by the events and characteristics described in
 this chapter will be described.

Table 1
 Key Indicators of Economic Development (32:8)

Economic Indicators	1950	1970	Index of Change (1950=100)
GNP/capita	865	2,684	310
Private Consumption/capita	734	1,799	245
Public Consumption/capita	217	782	360
Gross Domestic Capital Formation/capita	478	627	131
Average Population (thousands)	1,267	2,957	234

Source: The Enigma of Economic Growth by David Horowitz,
 1972.

by the position of Israel relative to the Arab states. In the next chapter the effect on Israel's armed forces strategy by the events and characteristics described in this chapter, will be described.

Table 1
Key Indicators of Economic Development (1950-1970)

Indicator	1950	1970	Index of Change (1950-1970)
GDP/capita	552	1,584	2.87
Per-capita consumption	175	475	2.71
Per-capita investment	517	1,582	3.06
Gross Domestic Capital Formation/capita	473	1,527	3.23
Average Population (thousands)	1,587	2,957	1.86

Chapter 3

ISRAELI ARMED FORCES STRUCTURE

Before the "October War", the International Institute for Strategic Studies in London reported in The Military Balance 1973-1974 a three to one "balance" of strength against Israel by its main adversaries (6:113). Israel for the most part has always accepted this "balance" as being within its military capabilities. However, since 1973, the Arab states have been purchasing massive quantities of new and sophisticated arms from the Soviet Union and Western nations (6:15). A projection of the estimated ratio for 1980, which is shown in Table 2, indicates that the Arab states may be obtaining the strategic advantage. The Israelis must either buy arms now or face the possibility that they may not be able to successfully defend themselves in the near future.

In the past the Israelis have overcome their numerically inferior position by superior leadership, training, and equipment (59:660). However, the 1973 war demonstrated to Israel that the Arabs had achieved a greatly improved military capability. Improved Arab armies, coupled with the recent sale of U.S. equipment

Table 2

Ratio of Balance of Power Against Israel (6:113)

Military Status	1975		1980	
	Confrontation States*	Confrontation Area**	Confrontation States*	Confrontation Area**
Combat Aircraft	2.8 to 1	3 to 1	3.2 to 1	3.8 to 1
Tanks	2.7 to 1	3 to 1	3 to 1	3.6 to 1
Artillery	6 to 1	9 to 1	8 to 1	9 to 1
Armed Forces (Divisions)	4 to 1	5 to 1	5 to 1	6 to 1
SAM Batteries	10 to 1	12 to 1	18 to 1	20 to 1

* Egypt, Syria, and Jordan

** Egypt, Syria, Jordan, Iraq, Saudi Arabia, Kuwait, Libya, Algeria, Morocco, Sudan, and Tunisia

Source: Myths and Facts 1976: A Concise Record of the Arab-Israeli Conflict by Wolf I. Blitzer, ed., 1976.

and arms to the Arabs may have altered the delicate military balance of power between Israel and the Arab states (6:115).

The total military strengths of all Arab nations, as of 1976, are depicted in Tables 3 and 4. Even though Israeli planning is based on this total Arab threat, it is unlikely that all Arab nations will be involved simultaneously in a war with Israel. The most likely combatants and their force structure are presented in Table 5. As can be surmised from Table 5, the Israelis are outmanned and outgunned in every category. In manpower, the ratio between the Arabs and Israelis is approximately 1.4 to 1; in aircraft, 2 to 1; in tanks and Armoured Personnel Carriers (APC) 1.5 to 1; and in artillery, 2.8 to 1. The 1973 versus 1977 figures show that the Arabs and Israelis have not only replaced the losses of the 1973 war, but have also increased the size and sophistication of their arsenals.

The threat as in the past continues to exist for the Israelis; however, its present state is analyzed by Edward N. Luttwak, Assistant Director, Washington Center on Foreign Policy Research, John Hopkins University, in this manner:

Table 3

Army Strength in the Middle East, 1975/76 (53:41)

Country	Number
Egypt	275,000
Syria	150,000
Jordan	75,000
Iraq	120,000
Algeria	55,000
Libya	25,000
Saudi Arabia	<u>40,000</u>
Total Arab	740,000
Israel	400,000 *

* At full mobilization, which takes 72 hours. The Arabs already are essentially at full mobilization. Their 1,000,000 soldiers listed as reserves would likely be a little additional assistance during hostilities given their training, equipment, and basic allotted role.

Source: Implications of 1976 Arab-Israeli Military Status by Robert J. Pranger and Dale R. Tahtinen, 1976.

Table 4

Future Arab Force Strength (6:117)

EASTERN FRONT--(Syria, Jordan, Iraq, Saudi Arabia, Kuwait)

20	Divisions
1000	Combat Aircraft
5400	Tanks
5000	Armored Personnel Carriers
3000	Artillery Pieces
150	SAM Batteries

WESTERN FRONT--(Egypt, Libya, Algeria, Morocco, Sudan, Tunisia)

15	Divisions
1150	Combat Aircraft (840 from Egypt)
3500	Tanks
3850	Armored Personnel Carriers
2800	Artillery Pieces
250	SAM Batteries

Source: Myths and Facts 1976: A Concise Record of the Arab-Israel Conflict by Wolf I. Blitzer, ed., 1976.

Table 5
Middle East Military Balance (69:26)

Country	Year	Total Armed Forces	Combat Planes	Tanks** & APCs	Artillery
Egypt	1973	330,000	620	4,230	1,900
	1977	350,000	590	4,300	1,800
Jordan	1973	74,000	46	505	120
	1977	73,000	88	1,080	350
Syria	1973	135,000	310	3,100	1,200
	1977	230,000	450	3,900	1,600
Total Arab	1973	539,000	976	7,835	3,220
	1977	653,000	1,128	9,280	3,750
Israel	1973	300,000*	517	2,025	570
	1977	480,000*	590	6,225	1,350

* Mobilized forces after 72 hours

** Armored personnel carriers

Source: Time, May 30, 1977.

It is generally agreed that Egypt will not launch hostilities against Israel during the 3-year term of the 1975 Sinai II agreement and is not likely to do so post-1978 either, if U.S. diplomacy maintains its present course.

It is also agreed that Syria also is not likely to initiate hostilities against Israel (in the absence of Egyptian cooperation) unless it can count on full-scale Jordanian participation in a conflict.

Jordan's propensity to join Syria in launching an attack upon Israel is to a large extent a function of its vulnerability to Israeli air attack. (In 1973 Jordan did not open a third front in the October War largely because of its total vulnerability to Israeli air attack, as King Hussein himself made plain) [78:707].

Israeli Defense Forces (IDF)

The ever-changing Arab threat has imposed many radical changes upon Israel's military posture over the past 25 years.

In the post-1948 war period, emphasis was placed on the foot soldier in light, fast vehicles. The country's military forces were trained principally for 'offensive' rather than 'defensive' warfare. In the mid-1950s, emphasis was placed on armor, specifically tanks. Prior to the 1973 war, military tactical planners had shifted to a defensive posture The narrowing technological gap between the Israelis and the Arabs dictates the current defensive posture of Israel Emphasis now is on long range air mobility and highly mobile ground strike forces [21:2-3].

Israel's military posture has also changed because of territorial gains. Although it has always

been surrounded by land by hostile Arab nations, Israel did not acquire what it considered to be defensible borders until 1967. The territorial gains made in that war gave Israel strategic depth, better lines of defense, and more operational maneuverability in terms of time and space. The country as it now exists, stretches 260 miles from north to south and varies from less than ten miles to more than 65 miles from east to west. Therefore, because of its size, its encirclement, and the ever-changing Arab threat, Israel has built and maintained one of the most sophisticated and modern military arsenals in the world (21:1).

The IDF has been developed taking the following military principles into consideration:

1. If the security of Israel is endangered, the IDF will undertake a pre-emptive strike.
2. If a war breaks out, transfer the fighting as soon as possible to the enemy's territory.
3. The IDF will dictate the terms of battle.
4. The war will be brief because of international pressure groups such as the superpowers.
5. A constant state of alert will be maintained.
6. Ample warning time must exist in order to mobilize the reserves.

7. The threat is assumed to be all Arab nations; furthermore, they must be faced collectively.
8. Strategic planning must be flexible.
9. The strongest foe must be defeated first.
10. A strong, credible deterrence must be established to prevent the Arabs from underestimating the IDF's real power (30:66-67).

These principles explain many of the actions taken by the Israelis in meeting the Arab threat. Further examination of the armed forces of Israel provide additional insight into the application of the above principles by their centralized command.

A description of Israel's air force, army, and navy and the defense spending associated with the IDF follows in the next four sections of this chapter.

Air Force

After the 1967 war, the Israeli Air Force (IAF) received more attention than ever. It established itself as the single most important arm of the IDF. With the addition of American arms, the air force made a quantum jump in quality of planes, their payload, operational range, versatility, and ease of maintenance. Further advances were made during the war of attrition

(1968-1970) when the IAF was forced to develop improved radar control systems and electronic counter-measures (30:59).

Today, the IAF continues to acquire more sophisticated and current aircraft from the U.S. The IAF has also produced its own fighter aircraft, the Kfir, which is appearing in greater numbers in the IAF. Table 6 illustrates the acquisition trend which has been pursued by Israeli military strategists (53:26). It does not include 25 F-15 aircraft purchased from the U.S. in 1976 and does not mention an order for approximately 100 F-16 aircraft which will be delivered by 1980 (15:17). With its present and future force structure, the IAF seeks to fulfill its mission " . . . to defend and control Israeli airspace, gain and maintain air superiority, and provide support for the army and navy [61:382]."

The air force is composed of about 19,000 personnel with 25,000 reserves on mobilization status. In the International Institute of Strategic Studies in London, The Military Balance 1976/1977 organizes the IAF into the categories shown in Table 7.

It should be noted that instead of 33 Kfirs, there were more than 110 Kfirs in the Israeli Air Force as of January 1976 with the number increasing to a target requirement of 200 (53:29).

Table 6

Combat Aircraft of Israel (53:26)

Country/Aircraft Type	1967-68*	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-78
ISRAEL									
RF-4E Reconnaissance	--	--	--	--	--	--	--	6	6
F-4 fighter-bomber/interceptor	--	--	--	36	75	120	127	150	200
A-4 fighter-bomber	--	48	48	67	72	125	162	180	200
Mirage III fighter-bomber/interceptor	65	65	65	60	60	50	35	25	--
Kfir fighter	--	--	--	--	--	--	25	30	110*
Vautour light bomber	15	15	15	12	10	10	12	10	**
Mystere IVA fighter-bomber	25	35	35	30	27	27	23	23	**
Oragan fighter-bomber	50	45	35	30	30	30	30	30	**
Super Mystere Interceptor	25	15	12	10	9	9	18	12	**
Total	180	223	210	245	283	371	432	466	516

* Includes Mirage III

** In reserve or storage

Source: Implications of 1976 Arab-Israeli Military Status by Robert J. Pranger and Dale R. Tahtinen, 1976.

Table 7

Israeli Air Force (47:34-35)

AIR FORCE: 543 combat aircraft

A. Fighters

1. 204 F-4E; 6 RF-4E
2. 50 Mirage III
3. 33 Kfirs
4. 250 A-4H/N Skyhawk

B. Cargo/Tanker

1. 5 Boeing 707
2. 12 C-97
3. 20 Noratlas
4. 10 C-47
5. 24 C-130E/H
6. 14 Arava
7. 10 Do-27; 10 Do-28
8. 9 Islander transports

C. Trainers

1. 24 TA-4H
2. 80 Fouga Magister
3. 20 Beech Queen Air

D. Helicopters

1. 12 Super Frelon
2. 18 CH-53G
3. 23 AB-205A
4. 12 CH-3C
5. 25 UH-1D
6. 15 S-65
7. 12 S-61
8. Alouette II

E. SAM - 15 batteries with 90 Hawk

Source: The Military Balance 1976-1977, International
Institute for Strategic Studies, 1977.

Also included in the IAF inventory are the helicopters which are playing a greater role in the IDF's defense strategy of long range mobility. Besides the present helicopters depicted in Table 8, the Israelis have placed orders for Bell AH-1 Huey Cobra helicopters and Boeing Vertol CH-47 Chinooks (21:4).

Table 8

Israel's Helicopter Force (53:39)

Country/Aircraft Type	1967-68	1973	1974-75	1975-76
<u>ISRAEL</u>				
S-65	--	--	--	20
CH-53G	--	12	18	18
UH-1D Iroquois	--	25	25	25
AB-205	--	20	20	20
Super Frelon		12	9	9
Alouette II	40	--	5	5
S-58	--	--	--	--
Total	40	69	77	97

Source: Implications of 1976 Arab-Israeli Military Status by Robert J. Pranger and Dale R. Tahtinen, 1976.

Army

The army emerged from the 1967 war with a de-emphasis on the role of the tank. The tank had always

played an important part in the tactics and strategies of the IDF. The tank corps had been continually modified and modernized to take advantage of the lessons learned from past wars. Old tanks had been upgraded with new engines and greater fire power and new tanks had been procured from abroad (30:61). The acquisitions through 1976 have been listed in Table 9. Although the IDF continues to upgrade its force, it now seeks a more balanced policy which integrates the tank with other mechanized units (30:61).

Besides its armored divisions, the army has an infantry of 135,000, which in 72 hours can be increased to 400,000 personnel (46:69). The composition of the army, in terms of organization and equipment, is shown in Table 10.

The army's mission is "to provide for internal security and territorial defense [61:379]."

Navy

The final branch of the IDF is the navy. Even though it has not grown significantly compared to the other two branches of service, its importance has increased with the additional coastal territory captured in the 1967 war. The Israeli navy updated its force

Table 9
Israel's Tank Buildup (53:42)

Country/Vehicle Type	1968	1973	1974-75	1975-76
ISRAEL				
Other medium tanks	--	--	--	350
PT-76	--	--	*	65
T-62	--	--	*	150
M-60	--	150	*	450
M-48	225	400	*	400
Ben Gurion	250	250	--	--
Centurion	--	600	*	900
Sherman, Isherman, and Super Sherman	--	200	*	200
Super Sherman	175	--	--	--

* Exact number unspecified

Source: Implications of 1976 Arab-Israeli Military Status by Robert J. Pranger and Dale R. Tahtinen, 1976.

Table 10
Israeli Army (47:34)

ARMY

A. Brigades

1. 15 armored
2. 9 mechanized
3. 9 infantry
4. 5 parachute
5. 9 artillery

NOTE: 11 brigades (5 armored, 4 infantry, 2 parachute) are normally kept near full strength; 6 (1 armored, 4 mechanized, 1 parachute) are between 50 percent and full strength; the rest are at cadre strength.

B. Equipment

1. Tanks--2700 medium tanks
 - a. 900 Centurions
 - b. 600 M-48
 - c. 650 M-60
 - d. 400 T-54/55
 - e. 150 T-62
 - f. 65 PT-76 It
2. Armored Fighting Vehicles (AFV)--3600
3. APC--3300
4. Artillery & SAM/SSM
 - a. 500--105 mm, L-354, M-109, 155 mm howitzer
 - b. 60--175 mm, 203 mm howitzer
 - c. 450--120 mm, 122 mm, 130 mm, 155 mm guns/howitzer
 - d. 900--120 mm, 160 mm
 - e. 900--20 mm, Vulcan/Chapparal, 30 mm, 40 mm AA guns
 - f. Others:
 - (1) Lance, Ze'ev (Wolf) ssm
 - (2) 122 mm, 135 mm, 240 mm RL
 - (3) 106 mm RCL
 - (4) LAW, TOW, Cobra, SS-10/-11, Sagger ATGW
 - (5) Redeye SAM

Source: The Military Balance 1976-1977, International Institute for Strategic Studies, 1977.

through the development of missile boats which utilized the Israeli-produced "Gabriel" sea-to-sea missile (30:60). With several classes of missile/patrol boats and five submarines, the navy pursues its mission

. . . to guard the state's sovereignty in the Mediterranean and the Red Sea; to defend the national coastline and render it secure; and to protect shipping and fishing rights within territorial waters [61:382].

The navy now consists of 4,500 personnel with an additional 6,000 in reserve (46:70) and has the ships shown in Table 11 in its inventory.

Defense Spending

As evidenced from the force structure tables, the IDF has fostered a modern, viable fighting force. However, it has been obtained at an extremely high price. Table 12 depicts the dollar amounts expended per year in acquiring the new and more sophisticated arms. It also breaks down the cost into cost per capita, the percent of total government spending, and the percent of GNP which is allocated to defense spending.

The high cost of defense spending is a result of the amount of arms required to meet the threat, the growing sophistication of the arms, and the inflationary nature of the world economy. Another factor that has a

Table 11

Israeli Navy (47:34)

NAVY

A. Submarines--5

1. 3 Type 206
2. 2 ex-British T-class

B. Fast Patrol Guided Missile Boat

1. 6 Reshef-class with Gabriel SSM
2. 12 Saar-class with Gabriel SSM

C. Others

1. 2 large patrol boats
2. 43 smaller boats (under 100 tons)
3. 10 landing craft

D. Additional personnel--300 naval commandos

Source: The Military Balance 1976-1977, International
Institute for Strategic Studies, 1977.

Table 12
Defense Expenditures 1972-1977 (47:79)

Year	\$ Millions	\$ Per Capita	% Government Spending	% of GNP
1973	3,644	1,146	60.4	20.3
1974	3,869	1,173	51.0	40.8
1975	3,552	1,045	50.1	31.8
1976	4,214	1,201	56.7	35.9

Source: The Military Balance 1976-1977, International
Institute for Strategic Studies, 1977.

bearing on the cost of arms to Israel is the differential price between the American product versus the Soviet product. For example, in 1975 a wing of 25 F-15s cost the Israelis \$650 million while the Soviet equivalent, MIG-23 wing could have been purchased for \$250 million due to reduced avionics and labor costs (38:17). Other comparisons are itemized in Table 13.

Table 13

Cost Comparison of U.S. vs. Soviet Arms (38:18)

U.S. Aircraft	Cost	Soviet Aircraft	Cost
F-15	12.0 million*	MIG-23	6.7 million
F-4	5.7 million	MIG-21	2.0 million
A-4	3.0 million	SU-7	1.8 million
A-7	8.0 million	SU-2	2.0 million

*U.S. dollars

Source: "Israeli Air Force Faces New Arab Arms,"
Aviation Week, March 10, 1975, p. 18.

For an equal amount of money, the Egyptians are receiving twice as many items as are the Israelis.

As already mentioned in Chapter 2, defense spending has had a drastic affect on the Israeli economy.

From 1973 to 1975 the Israeli pound has been devalued by 70 percent: the foreign debt has increased to \$7.9 billion; and the growth in the GNP has dropped to a mere four percent. Because of defense, the Israelis have become the highest taxed people in the world, giving 70 percent of an average week's salary to the government (6:108-109).

It is believed that the asymmetry in resources can only be corrected by American supplies and economic aid to create a balance of power in the Middle East (17:16). Since Israel cannot itself produce what it needs, there only remain two ways in which they can acquire the necessary weaponry for survival:

- 1) The U.S. can supply the need unstintingly and before attack on Israel becomes imminent or real;
- 2) The U.S. can help Israel develop a capacity to produce weaponry on a much greater scale than it does presently and the U.S. can then make up the difference [12:47].

Chapter 4

FMS, ECONOMIC AID, AND SECURITY SUPPORTING ASSISTANCE

The total U.S. military and economic aid and security supporting assistance to Israel has been divided in Table 14 into three distinct time periods: (1) 1949-1967, (2) 1968-1973, and (3) 1974-1978. The end points of the first two periods coincide with an Arab-Israeli conflict which appears to have been instrumental in formulating or changing U.S. military aid policy with respect to Israel. The third end point, 1978, represents the aid to date and has no historical significance. The years prior to 1967 account for eight percent of the total U.S. aid to Israel. This relatively small amount over an 18-year period can easily be explained when viewed in light of the early U.S.-Israeli relationship. The other two periods representing 14 percent and 78 percent, respectively, can also be more easily understood when linked to the history of U.S. policies and the events of the Middle East.

History

The origins of U.S. involvement in the Middle East can be traced to the vast oil reserves and Britain's

Table 14

Total Military and Economic Aid Per Year (64:18,71:111)

FY	\$ (In Millions)	Percent of Total
49-52	86.5	
53-61	508.1	
62-65	259.3	
66	126.8	
67	<u>13.1</u>	
Total	993.8	8
68	76.8	
69	121.7	
70	71.1	
71	600.8	
72	404.2	
73	<u>417.3</u>	
Total	1691.9	14
74	2534.2	
75	653.1	
76	2493.9 *	
77	1745.9 *	
78	<u>1796.0 *</u>	
Total	9223.1	78
Grand Total	11,908.9	100

* Figures taken from Congressional Presentation Document FY1978.

Sources: U.S. Overseas Loans and Grants and Assistance From International Organizations, the Agency for International Development, 1976.

Congressional Presentation Document FY1978,
U.S. Congress, 1977.

attempt to monopolize them at the end of WWI. The U.S., having expended large quantities of its own oil during the war for the allied victory, protested British tactics and insisted on a share of the Middle East oil. Further interests, other than economic, did not develop until after WWII when the U.S. began to assume the political role which the British and French were forced to relinquish. Fearing that Soviets might attempt to fill the vacuum created by the diplomatic defeat of the British and the French during the Suez crisis, the U.S. became unofficially allied with Israel in 1956 (16:10).

The U.S. initially assumed the role of Israel's chief supporter with reluctance. Throughout the 1950s and early 1960s, Washington had ignored Israeli arms requests so as not to jeopardize either its friendships with Arab countries or its oil interests in the Middle East (16:9). The U.S. for diplomatic, strategic, and protective security reasons encouraged the Israelis to buy what they needed in Western Europe (80:705). U.S. aid to Israel over the 20-year period prior to 1967 was less than \$1 billion total and averaged less than eight percent of the total FMS figure (Table 14).

The majority of arms obtained by Israel during 1950-1960 were purchased from France, Britain, and West

Germany. However, after the conclusion of the Algerian War in 1962, France began to shift its arms sales policy towards support of the Arab nations. West Germany, whose secret sales to Israel became known in late 1964, also abruptly halted its arms flow to Israel. The primary cause of its shift stemmed from an Egyptian threat to recognize the East German government (16:19). With the French and West German decisions in the mid-1960s to cut off arms to Israel, U.S. policy makers felt they had no alternative but to step into the arms supplier role in order to counter Soviet assistance to the Egyptians (16:9).

In 1962, the U.S. supplied Israel with surface-to-air Hawk anti-aircraft missiles followed by the Patton tanks in 1965. Finally, in 1966, the U.S. agreed to supply Israel with U.S. combat aircraft. The sale of 48 A-4 Skyhawk fighter-bombers marked the first entry of U.S. aircraft into the Middle East arms arena (16:19).

In each of these transactions, the U.S. became an arms supplier only because of Russian deliveries to the Egyptians and used the following general guidelines to minimize their diplomatic exposure and dampen the arms race in the Middle East: (1) U.S. deliveries would follow Soviet deliveries to Egypt by a year or two;

(2) the U.S. would counter a new Soviet weapon with the least provocative weapon in the U.S. inventory; and (3) the U.S. would always deliver fewer weapons than the Soviets had delivered to the Egyptians (78:706).

From 1968-1973, the U.S. entered a new era in the support of Israel. The Soviet Union had already established itself as Egypt's major arms supplier and had built a reputation as the main supporter of the Arab cause against Israel (16:14). The Soviets had usually set the pattern for the arms sale in the Middle East, forcing the west to match the level and sophistication of Soviet arms.

However, in 1968, the U.S. leaders under the pressures of a presidential campaign vaulted the U.S. into the catalyst role in the arms race. President Johnson announced the sale of 50 Phantom F-4s to Israel.. To the Arab world, the F-4 represented the top fighter aircraft in the world at that time and seemed to guarantee the Israelis military superiority (19:21). Still smarting from their defeat in the Six-Day War, the Arabs reacted to the F-4 sales by increasing the amount and sophistication of weapons being received from the Soviets. Instead of equalizing the balance of power, the U.S. sale

had escalated the arms race in the Middle East and was helping "to hook these nations on the heroin of modern arms [16:19]."

From 1968-1973, the U.S. Congress began to play a major role in the support of Israel. In 1971, the Senate supported, without public hearing, an extra \$500 million to finance weapon sales to Israel (1:24). This measure was passed by both Houses and the funds were appropriated by P.L. 91-665 (18:2). Then, for 1972 and 1973, Congress enacted legislation that authorized the transfer of an unlimited amount of aircraft and supporting equipment to Israel through sales, credit sales, or guaranty (16:19). The growth of Congressional appropriations from \$76.8 million in 1968 to almost \$500 million by 1973 emphasized to the Arabs and Soviets that the U.S. would not allow the military balance to shift against Israel (16:20).

After the 1973 war, U.S. aid to Israel entered a new phase. Prior to that time, U.S. assistance to Israel had been either a cash or credit sale. But, because of the magnitude of Israel's needs and the heavy toll the war had taken on the Israeli economy, the U.S. for the first time agreed to provide outright grants of military aid (16:19). The first authorization under

this new grant policy occurred in 1974 when \$2.4 billion was appropriated by Congress and \$1.5 billion was immediately forgiven. The waived repayments of FMS continued to grow over the next four years reaching a staggering \$3.45 billion by 1978 (Table 15). Another grant occurred in 1976 when \$475 million of the \$700 million of security supporting assistance was forgiven. In three short years, more than \$1.54 billion had been forgiven under this support program (Table 16). Therefore, of the \$9.22 billion in FMS and security supporting assistance received by Israel since 1974, 54 percent has been forgiven (Tables 14, 15, and 16).

Today the scale and nature of U.S. arms sales to the Middle East has changed. In a prepared statement for the Committee on Appropriations, U.S. House of Representatives, Edward N. Luttwak, Assistant Director of the Washington Center on Foreign Policy Research, John Hopkins University, said:

In particular:

- (i) US policy has been reversed from a politically motivated restrictive policy to a commercially motivated marketing policy;
- (ii) The supply of weapons, formerly a secondary tool of American diplomacy, has become the standard incentive offered to Middle Eastern nations when concessions of one sort or another are demanded from them;
- (iii) Limitations on arms sales motivated by considerations have been virtually abandoned; and

Table 15

FMS Credit Program, 1955-1978 (18:8,71:110)

FY	\$ (In Thousands)	\$ Forgiven
1955-66	129,720	
67	6,860	
68	25,000	
69	85,000	
70	30,000	
71	545,000	
72	300,000	
73	300,000	
74	2,482,664	1,500,000
75	300,000	100,000
76	1,500,000*	750,000*
76T	200,000*	100,000*
77	1,000,000*	500,000*
78	<u>1,000,000*</u>	<u>500,000*</u>
Total	7,904,244	3,450,000

* Figures from Congressional Presentation Document
FY1978.

Sources: Foreign Military Sales and Military Assistance
Facts, DSAA, December, 1976.

Congressional Presentation Document FY1978,
U.S. Congress, 1977.

Table 16

Security Supporting Assistance, 1976-1978 (71:111)

FY	\$ (In Thousands)	\$ Forgiven
76	700,000	475,000
76T	75,000	50,000
77	735,000	490,000
78	<u>785,000</u>	<u>525,000</u>
Total	2,295,000	1,540,000

Source: Congressional Presentation Document FY1978,
U.S. Congress, 1977.

(iv) Restrictions on arms sales motivated by security considerations have also been waived in almost every instance [78:706].

The nature of the U.S. weaponry now being delivered to Israel has been seen as strengthening Israel's military capability. This has increased their readiness to take military risks and negotiate with the Arabs on relinquishing occupied territories. By offering or retracting certain weapon systems, the U.S. has attempted to extract Israeli concessions on particular negotiating points, e.g., the embargo of U.S. weapons deliveries in 1975 to obtain a second Israeli withdrawal in the Sinai (beyond the Mitla/Giddi passes) (78:707).

Terms of Credit

Table 17 provides the date, type, amount, interest rate, and date of principal repayment of the loans to Israel from 1971-1975. Table 18 presents similar information and takes the data up through FY1977.

It should be noted that the three percent interest rate loans are considered to be concessionary rates¹ and are rarely used in the FMS program. However,

¹Concessionary rates are loans made for less than the cost of the money (85:152).

Table 17

Loans and Repayment Status, 1971-1975 (21:11)

Type of Loan	Date of Loan	Amount of Loan	Interest Rate	Date of Final Principal Repayment
DoD direct	2/23/71	\$ 350,000,000	3,000	10/15/95
"	"	150,000,000	6,125	1/15/81
"	6/30/71	25,000,000	6,250	6/15/81
DoD guaranteed	"	20,000,000	(1)	6/15/76
DoD direct	3/31/72	150,000,000	3,000	3/31/82
DoD guaranteed	"	150,000,000	(1)	3/31/79
DoD direct	2/15/73	100,000,000	6,250	7/31/83
DoD guaranteed	"	100,000,000	6,250	7/31/78
DoD direct	4/19/73	50,000,000	6,750	10/31/83
DoD guaranteed	5/11/73	50,000,000	6,750	10/31/78
To be forgiven	4/23/74	1,000,000,000	(2)	(2)
"	6/3/74	500,000,000	(2)	(2)
DoD guaranteed	"	300,000,000	9,750	6/30/94
DoD direct	6/13/74	682,663,800	3,000	1/1/96
To be forgiven	6/24/75	100,000,000	(2)	(2)
DoD guaranteed	6/26/75	200,000,000	(3)	6/10/85

(1) ½ percent over prime rate

(2) Not applicable

(3) Cost of money to US government

Source: Israel Summary, DMS Market Intelligence Report, 1976.

Table 18

Loans and Repayment Status, 1976-1977 (2)

Type	Year	Amount	Interest Rate	Amount Repaid As of 8/1/77
DoD guaranteed	FY76	200,000,000	floating*	Ø
DoD guaranteed	FY76	550,000,000	floating	Ø
DoD direct	FY76	100,000,000	forgiven	Ø
DoD guaranteed	FY76	100,000,000	floating	Ø
DoD direct	FY76	100,000,000	forgiven	Ø
DoD direct	FY76	650,000,000	forgiven	Ø
DoD guaranteed	FY77	500,000,000	floating	Ø
DoD direct	FY77	500,000,000	direct	Ø

* floating--a margin above that bank's prime rate (or 1½ percent or more points above London inter-bank offered (LIBO) rate) and adjusting this rate with each change in the prime rate during the term of the loan (76:826).

Source: Telephone interview, DSAA Country Manager, Israel, 1977.

Israel has received several of these concessionary loans since 1971 and has been provided with the most favorable interest rates (three percent) to date and the largest dollar amounts (\$1.2 billion total) of any country listed in this concessionary category (85:152).

Besides concessionary interest rates on some loans, Israel has received favorable terms on the repayment of the other loans. In the International Security Assistance and Arms Control Act of 1976, it states,

Funds made available for the fiscal years 1976 and 1977 under subsection (a) of this section shall be obligated to finance the procurement of defense articles and defense services by Israel on a long-term repayment basis either by the extension of credits, without regard to the limitations contained in section 23, or by the issuance of guaranties under section 24. Repayment shall be in not less than twenty years, following a grace period of ten years on repayment of principal. Israel shall be released from one-half of its contractual liability to repay the United States Government with respect to defense articles and defense services so financed for each such year [72:259].

The terms mandated to other countries requires repayment within 12 years (72:256). As mentioned earlier, the terms of credit to Israel have been most favorable.

Summary

During a 30 year period from 1948 through 1978, Israel has received approximately \$11.9 billion in aid from the U.S. The FMS credit program accounts for \$7.9

billion or 67 percent of the total security assistance. The remaining \$4 billion is broken down into two major categories: security supporting assistance and economic aid. Security supporting assistance represents 19 percent of the total aid and all of it has been received since 1976. Of the \$2.3 billion of security supporting assistance 67 percent is grant (waived repayments); the remainder has been loaned under terms considered to be quite favorable to Israel. The economic aid of \$1.7 billion, on the other hand, represents 14 percent of the total aid and has been a continuing U.S. appropriation for the state of Israel since 1948. The majority of this aid has been established on a loan basis and as of 1977, 69 percent of this \$1.7 billion had been paid back (Figure 8).

Over a 30-year period \$11.9 billion is not an unreasonable amount. However, 78 percent of this amount has been received since 1974 and 58 percent (Tables 14, 15, 19) of the total since 1974 has been forgiven. As compared to other U.S. loans and credits, it would appear that \$8.22 billion over a five year (FY1974-1978) period represents an unusual amount of U.S. aid for a country of three million inhabitants (Table 14).

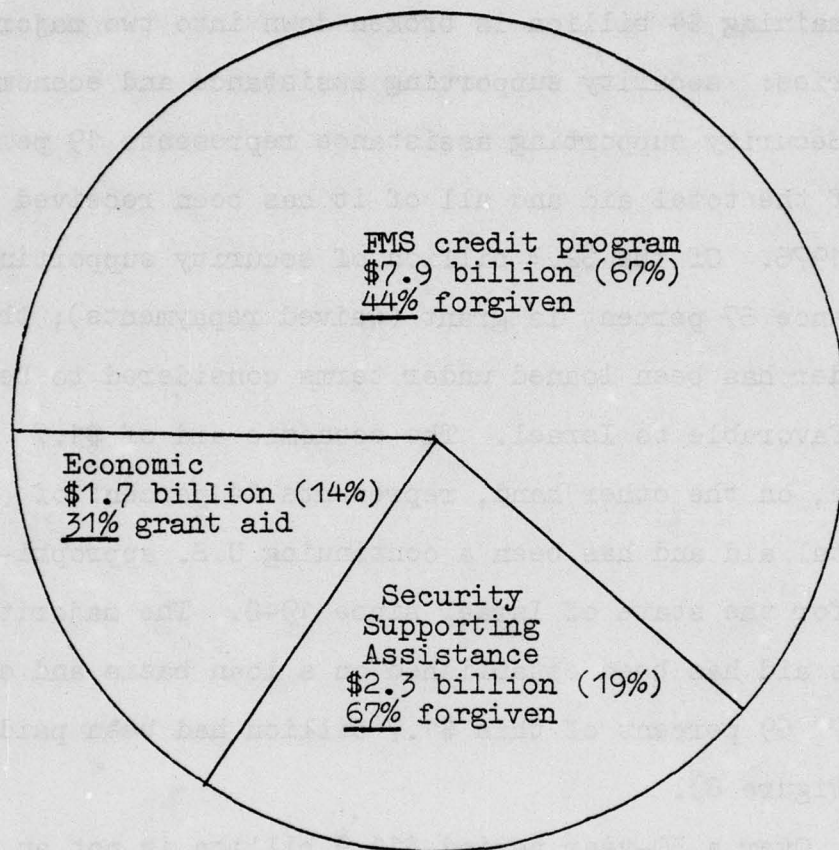


Figure 8

Total Aid, 1948-1978
(\$11.9 billion)

Table 19
Economic Aid, 1949-1978 (64:18,71:111)

FY	\$ (In Millions)	Grant
1949-52	86.5	86.5
1953-61	507.2	258.9
1962-65	219.9	22.9
66	36.8	0.9
67	6.1	0.6
68	51.8	0.5
69	36.7	0.6
70	41.1	0.4
71	55.8	0.3
72	104.2	50.4
73	109.8	50.4
74	51.5	51.5
75	353.1	344.5
76 (includes transition qtr)	18.9*	
77	10.9*	
78	11.0*	
Total	1,673.4	523.0

* Figures taken from Congressional Presentation Document FY1978.

Sources: U.S. Overseas Loans and Grants and Assistance From International Organizations, the Agency for International Development, 1976.

Congressional Presentation Document FY1978, U.S. Congress, 1977.

The Data

Figure 8 gives a complete summary of U.S. aid to Israel through 1978. The categories of aid depicted on the pie-shaped chart have three significant numbers associated with them: (1) the total dollar amount appropriated by Congress, (2) in parentheses, the percent each category is of the total, and (3) the percent of aid in each category that has been forgiven is underlined.

The array of figures which follow the chart was obtained from various, unclassified government sources. There were some differences found between these sources; however, most occur because of rounding and do not have a significant affect on the outcome of the data or the analysis. The amount of aid given in the early years has been consolidated because of the low dollar amount and the insignificance of those years on present policy.

The FMS credit program (Table 15), agreements (Table 20), and deliveries (Table 21) have been shown so that the reader can obtain a feel of how the three interact and correlate. The FMS credit program (Table 15) includes DoD direct and guaranty loans and all payment waived, i.e., dollar amounts approved by Congress and available to Israel. The next figure, the FMS agreements (Table 20) represents the use of these credit funds in

Table 20

FMS Agreements, 1950-1976 (18:13)

FY	\$ (In Thousands)
1950-66	139,113
67	9,294
68	77,476
69	310,494
70	44,528
71	413,492
72	409,230
73	181,740
74	2,455,205
75	864,052
76	<u>923,245</u>
Total	5,904,274

Source: Foreign Military Sales and Military Assistance
Facts, DSAA, December 1976.

Table 21
FMS Deliveries, 1950-1976 (18:14)

FY	\$ (In Thousands)
1950-66	41,913
67	14,100
68	28,598
69	72,486
70	215,864
71	315,145
72	192,499
73	189,903
74	978,148
75	667,682
76	<u>683,808</u>
Total	3,604,106

Source: Foreign Military Sales and Military Assistance Facts, DSAA, December, 1976.

purchasing U.S. weapons or contracting services. The FMS by service, coincides closely with the numbers in the FMS agreement and gives an indication as to how the funds were used by the Israelis.

The figures in Tables 20 and 22 do not match exactly because certain agreements have been handled through the Defense Logistics Agency (DLA) and were not included within the FMS by service figures in Table 22.

The final table in this section itemizes the commercial exports obtained from the Foreign Military Sales and Military Assistance Facts of December 1976. This figure was included primarily for informational purposes and was not used in the analysis or in the total aid figure to Israel. It was felt that many items exported from the U.S. commercial industries were purchased with U.S. FMS money; therefore, to include these figures in the total would result in erroneous dollar amounts and conclusions. To date, \$745 million in commercial goods have been exported (Table 23).

Table 22

FMS to Israel by Service (in thousands \$)
(Coincides with FMS Agreements)(31,70,86)

FY	NAVY	ARMY	AIR FORCE	TOTAL
1950-63	195	4,516	--	--
1964	14	279	--	--
1965	25	59,699	--	--
1966	70,611	1,485	--	--
1967	94	9,050	--	--
1968	61,852	15,122	491.8	77,465.8
1969	19,067	37,537	228,169.2	284,773.2
1970	27,172	15,009	6,363.4	48,544.4
1971	128,019	102,210	71,654.1	301,883.1
1972	158,379	46,295	161,164.0	365,838
1973	136,320	18,083	25,140.6	179,543.6
1974	211,206	1,632,788	513,325.0	2,357,319
1975	196,850	440,831	209,864.2	347,545
1976	190,390	105,073	652,923.3	948,386.3
1977 ^T	--	23,000	815.6	--
1977	537	--	--	--
Total	1,200,732	2,510,977	1,869,911.2	

Note: --- indicates that data were not available.

Sources:

Interview, U.S. Army, International Logistics Center, March, 1977.
Program Status of Selected Control Elements, U.S. Air Force Logistics Command, September, 1976.
Foreign Military Sales by Fiscal Year Activity, March, 1977.

Table 23

U.S. Commercial Arms Exports to Israel (18:16)

FY	\$ (In Thousands)
1960-66	8,949
67	4,578
68	10,467
69	11,708
70	37,195
71	26,526
72	63,068
73	21,555
74	50,118
75	46,746
76	155,000 (est) *
76T	51,000 (est) *
77	155,000 (est) *
78	<u>155,000</u> (est) *
Total	745,961

* Figures taken from Congressional Presentation Document FY1978.

Sources: Foreign Military Sales and Military Assistance Facts, DSAA, December, 1976.

Congressional Presentation Document FY1978, U.S. Congress, 1977.

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AIR FORCE INST OF TECH WRIGHT-PATTERSON AFB OHIO SCH0--ETC F/G 5/4
FOREIGN MILITARY SALES TO ISRAEL.(U)
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Chapter 5

RECENT DEVELOPMENTS

The information presented in the preceeding chapters has described the factors that account for the present status of FMS, credit, and aid to Israel. If stagnation and non-volatility were adequate descriptors of the Middle East, then perhaps the authors could draw their conclusions and terminate the study at this point. However, the events that have recently transpired in the Middle East re-emphasize that area's volatility. This chapter, therefore, will attempt to evaluate the impact that recent events may have on the future of Israel in general, and on security assistance programs to Israel by the U.S. in particular.

The events in this chapter have been grouped under the general heading of either Israel or the U.S., depending on the authors' assessment of their impact. Within those headings, each event has been reported under one of the following categories: military, economic, social, or political.

The authors did not attempt to include all recent events, only those which they felt may have had, or will have, an impact on the future of Israel and on

U.S. security assistance to Israel. Furthermore, since this study is subject to a deadline for the purpose of completing academic requirements, an arbitrary termination of August 1, 1977 was chosen. Events which occurred after that date will not appear in this paper. It is the authors' hope that further studies will be initiated to update this research beyond the cut-off date.

Security Assistance Related Events in Israel

This section of the chapter will deal with those recent events in Israel which may have an impact on FMS.

Military. Between 1965 and 1974, Israel had received arms from the following countries for the indicated amount:

Table 24

World-Wide FMS to Israel, 1965-1974 (21:10)

Supplying Country	\$ Millions
U.S.	\$3,172
France	131
U.K.	26
Germany	15
Others	36
Total	\$3,380

Source: Israel Summary, DMS Market Intelligence Report, 1976.

However, a vast majority of the aid from Western Europe and others was eliminated in 1973 when the Arabs for the first time were able to effectively enforce an oil embargo against countries which insisted on continued support of Israel. Because of their dependency on Arab oil and their limited reserves, Western Europe chose not to support Israel, leaving the U.S. as the sole source of major military weapon systems for Israel (7:128). The Western European stand was highlighted during the 1973 emergency by the U.S. airlift to Israel. Landing rights and even overflights of Western Europe were prohibited because U.S. allies feared that indirect support of Israel might result in a loss of oil (29:14).

Another result of the 1973 Yom Kippur War was the reassessment of the military doctrine by the Israelis. Remembering the Bar-Lev and its fall in 1973, the Israelis do not consider entrenchment a good military philosophy to follow, especially in light of the technological advances in weaponry achieved by the Arabs since that date. Emphasis, instead, has been placed on long-range air mobility and highly mobile ground strike forces (21:3).

¹ A line of hardened concrete and steel-reinforced bunkers on the east side of the Suez Canal built before the war of attrition in 1968 (59:691,761).

In addition to the C-130 transport aircraft, the F-15 fighters, the AH-1 Huey Cobra helicopters and the Sikorsky CH-53 helicopters which were purchased as part of the FMS cases in Chapter 4, the Israeli Air Force is placing orders for U.S. manufactured drones and targets such as the Beech AQM-39A, the RPV (Remotely-Piloted-Vehicle) from Teledyne Ryan and Aeronutronic Ford's Prairie, a mini-RPV. The two RPVs carry a combination of TV, Forward Looking Infrared Radar (FLIR) and laser designator used to designate targets for the Maverick missile which is carried by the F-4E (21:5). Another recent sale involves 18 Cobra gunship helicopters armed with anti-tank missiles (26:1). These systems will contribute to Israel's long-range mobility/strike force concept thus increasing their survivability.

One system that was turned down for sale to the Israeli Air Force, however, was the CBU-72 bomb (Cluster Bomb Unit). President Carter announced on February 18, 1977, that the CBU-72 bomb previously promised by President Ford would not be sold to Israel or to anybody, and could eventually be dropped from the U.S. inventory (5:11). This decision should not have serious implications for Israel.

The Israeli Army has also adopted mobility as a cornerstone of their military tactics. They are implementing this concept through construction of a new battle tank, the Chariot, which will be capable of carrying ten soldiers in addition to its crew and will be armed with a 105 mm cannon (68:10). The tank is regarded as the equal of, if not better than, the American M-60 tank. It will be constructed with \$107 million in American military aid which is part of a \$250 million package which was disclosed to Israel's Prime Minister Menahem Begin while visiting President Carter in July 1977 (26:1). Furthermore, President Carter also authorized the combined sale of 120 M-60 tanks and 155 millimeter howitzers to supplement the ground portion of the Israeli strike force (5:11).

The Israeli Navy is also revising its strategy from coastal protection to a long-range fleet capable of operating hundreds of miles from the home ports. It is presently seeking to double the size of its 420-ton Reshef missile boats and acquire commercially produced hydrofoils (21:12-13). The Reshef Mark 2 presently carries six aft-mounted Gabriel missiles, a 76 mm gun fore and aft, and twin 30 mm dual purpose cannons on each side of the bridge deck (14:xiv). When the Gabriel

entered the Israeli inventory in May 1970 it was the first operational ship-to-ship missile in the western world (21:7). The hydrofoils will be built by Grumman and will weigh 94 tons while having a speed, in ideal conditions, in excess of 40 knots (26:1). The added range of the Reshef and the flexibility of the hydrofoils will give the Israeli Navy the capability it needs to protect its shipping lanes in the Mediterranean and Red Seas (21:14).

Another recent event on the Israeli military scene has been the increase in the indigenous arms industry. Presently Israel makes the following: Uzi submachine guns, Galil light-assault rifles, Gabriel sea-to-sea missiles, Shafrir air-to-air missiles, communications equipment like teleprinters and scanners, a 300-mile range surface-to-surface missile, a TV guided air-to-ground missile, a modified barrage rocket, anti-personnel radar, and missile gunboats (22:3). Additionally, Israel has the capability to produce military and civil aircraft, tanks, howitzers, mortars, grenades, computers and computerized communications systems, fire control systems, security systems, industrial test equipment, maintenance training simulators, air and

ground crew equipment, ground support equipment, materials handling equipment, reinforced plastics and fiberglass structures, hydraulic and pneumatic equipment and systems, microwave components, hydrometric instruments, medical electronics, micro-electronics, TV-guided air-to-air missiles and possibly their own version of an RPV (21:6-8). (For a list of military hardware suppliers to Israel, see Appendix B).

The Israeli defense industries, however, only have the capability of manufacturing about 30 percent of their defense needs (44:40) and 40 percent of their light ammunition needs (22:3). The number of arms and the sophistication which they require to counter the Arab threat cannot be produced internally and must, therefore, be provided by the U.S.

Another item to be considered in this section is the claim by sources in the U.S. Defense Department and the Israeli high command that Israel's military superiority could vanish in the 18 months following July 1977 as a result of Arab armament purchases from the Soviet Union, Britain, France, and the U.S. The value of these arms sales between January 1974 and July 1977 has been estimated at about \$30 billion of which 65 percent occurred since January 1976 (45:3). This perception of

a possible arms imbalance by Israel will undoubtedly cause more FMS from the U.S. to be requested just to keep abreast of the Arabs.

A final military consideration involves Israel's potential for nuclear war. Presently Israel has two nuclear reactor centers of which one has been estimated to have been able to produce enough plutonium for about one 20-kiloton bomb per year since 1966 (54:11). Although Israel already has the F-4E, a system capable of delivering nuclear weapons, it is not known if they have devised a bomb which can be carried by that aircraft. Nonetheless, the U.S. is attempting to control Israel's capability to employ nuclear weapons in a given scenario by limiting or prohibiting the FMS of those systems capable of delivering a nuclear payload such as the Lance and the Pershing surface-to-surface missiles (89:17).

President Anwar Sadat of Egypt has expressed at least a rhetorical belief in Israel's nuclear capability by stating that Egypt has a plan to "wipe out" a million Israelis if Israel uses nuclear weapons in a new Middle East war. It is believed Egypt could live up to its threat by using a chemical or nerve gas warhead on its Soviet-built Scud missile which has a range of about 175 miles and could reach Tel-Aviv from the Suez Canal

(42:18). With such a threat over its largest city, Israel may find it necessary to purchase some sort of anti-missile system which would have to come from the U.S., thus increasing the likelihood of more FMS cases to Israel.

In summary, high losses during the 1973 war, changing strategies, limited internal defense manufacturing capability, and lack of support from other countries have forced Israel to become even more dependent upon the U.S. for military arms.

Economic. After the 1973 war, the increased military threat from the Arab nations to Israel and the adverse effects of trade deficits on the Israeli economy necessitated large scale U.S. government assistance to meet critical external assistance needs.

Lucy Wilson Benson, Under Secretary of State-designate, endorsed before Congress in March 1977 a substantial security supporting assistance program to Israel because she felt that Israel's political and economic base must be sustained in order to obtain the possibility for lasting peace (77:685). Alfred D. White, Deputy Assistant Administrator, Bureau of Near East, Agency for International Development (AID), also agreed by stating that,

The task of maintaining economic viability is a formidable one. Israel's economic base is far too narrow to support its heavy defense burden and civilian requirements without a compensating flow of resources from abroad [80:137].

Before 1973, Israel's economic needs were met largely through an exceptionally high level of private transfer payments, growing foreign investments and commercial loans. In the case of foreign investments, they grew from \$47 million in 1970 to \$179 million in 1973 and then declined back to \$50 million by 1976. Despite investment incentive programs, net foreign investment has remained relatively flat for the past several years and is not projected to improve in the near future (80:172).

Since 1973, Israel has had to implement austere measures within the country and supplement the economy with large loans and grants from the U.S. In 1976, Israel began to make headway towards economic recovery. Their current account deficit declined from 1975's \$4.0 billion to \$3.2 billion; the real GNP rose by three percent; the industrial output grew by six percent; short-term debt was reduced by \$140 million (80:137); and export of goods and services increased by 25 percent over 1976, which was twice the growth rate of world trade (41:45).

Israel has recently undertaken a new anti-inflation program which cuts \$143 million from the defense budget and reduces subsidies it pays wholesalers to control prices. On the one hand, a budget cut may reduce the amount of FMS requested from the U.S., but on the other, the 25 percent increase in food, electricity, and fuel costs may require a greater amount of security supporting assistance by Israel (50:1).

One way that Israel has counteracted its trade deficit has been through its previously mentioned arms industry. The arms sold represent overstocked materials and do not compete with U.S. arms in the international market. Israel presently sells arms to between 60 and 70 countries throughout the world (14:iv). Examples of these sales include several Shafrir air-to-air missiles to Chile, some navy patrol boats with surface-to-surface missiles to South Africa (27:3), and supersonic Mach 2.2 Kfir fighters to Austria (68:1).

The popularity of Israeli arms with other countries is due to several reasons: the equipment has been successfully used under punishing conditions against Soviet arms; field experience has been rapidly incorporated into production lines to improve weapon systems; quality and reliability are high; and prices are competitive with those in the U.S. and Western Europe (14:iv).

In 1976, official Israeli arms sales amounted to between \$300 million and \$500 million which was only 1.5 percent of world-wide arms sales for that year. However, Aviation and Space Technology reported that Israel sold \$560 million in arms in 1975 and over \$1 billion in 1976 (27:3).

However, Israel's economic recovery is far from being complete. The foreign debt is still \$9 billion; the defense budget consumes 40 percent of all government expenditures; and the inflation is 38 percent. The economic assistance that the U.S. provides, helps Israel to sustain and develop its economy and to enhance the confidence of its people in the country's future. It is believed that this confidence is a prerequisite for Israel's continued willingness to negotiate an equitable Middle East settlement (80:138).

Social. Directly related to the economic problems are the social problems. Due to a foreign debt of about \$2,571 per capita (possibly the world's highest), the average Israeli is taxed approximately 70 percent of his income. Along with the taxation rate, the 38 percent inflation rate further eats into the income of the Israeli worker. Because of these rather bleak monetary

circumstances, the pioneering spirit that inspired Israel's creation in 1948 is waning. More and more Israelis are seeking material things and the good and easy life. Workers are ignoring the requests of their national leaders to switch from white collar jobs in comfortable offices to grimmer tasks on the assembly line of the factories. This has resulted in expensive machinery standing idle for want of people to run it, to produce the goods necessary for its foreign export market. The entire value system within the country is changing. People are traveling despite a hefty travel tax; buying high priced, imported cars; and maintaining residency in the cities versus the cheaper and more plentiful housing offered in the rural areas (24:19).

Even immigration has become a problem. In 1976 more Jews left Israel than arrived (24:19). Most of the emigration and lack of immigration can be traced to the economic problems and uncertainty. Israel had looked to the Soviet Union's three million Jews as the remaining large pool that would supply it with immigrants (16:46). However, with the formulation and application of President Carter's human rights policy to U.S.-Soviet relations, the continued exodus of Jews from Russia is questionable; and, of those Jews that are still leaving

Russia, a greater number are choosing to immigrate to the U.S., Canada, or France as opposed to Israel (24:19). Without immigration, Israel cannot rapidly develop its industrial, military, and agricultural potential.

The social situation is further complicated by three potentially explosive problems. One is the social-cultural-economic gap between the oriental and the western Jew. The oriental Jew, the Sephardim, are dark-skinned Jews from Arab nations who comprise more than 50 percent of Israel's three million people (24:19). The tension between these two groups of Jews is sometimes compared with that between the black and white people in the U.S. Second is the tension between the ultra-religious and the secular Jews which has been manifested in the conflicting views regarding possession of holy land in Israel (16:48). The third has to do with the Arabs who live within Israeli borders. These people have shown signs of being psychologically unhealthy because of their lack of identification with Israeli culture, despite the equal status afforded them by Israel (40:162-163).

The state of Israel is facing serious internal problems whose solution is nearly as crucial to the nation's future as any Middle East settlement (24:19).

And again, because of the link between the social and economic problems, Israel is dependent upon the U.S.

Political. Since 1948, Israel has been governed by the Labor party under the leadership of David Ben-Gurion, Golda Meir, and Yitzhak Rabin. However, in the spring of 1977, the Likud coalition became the dominant bloc in Israel's parliament replacing the shattered, scandal-ridden Labor party (69:22). The defeat of the Labor party occurred for several reasons that can be traced back as far as the 1973 war.

The people felt as though the Labor party had momentarily faltered in handling the one essential issue in all of Israel--their security and survival (69:26).

A second reason for defeat was the scandals that had escalated into the highest levels of the government. A series of events ranging from Premier Rabin's illegal, overseas bank account in his wife's name to a suicide by a top Cabinet member caused the people to lose confidence in the ability and integrity of their leaders (69:25).

A third reason can be found in the serious social and economic problems alluded to earlier in this paper. Prolonged strikes, especially among public workers reflected widespread unhappiness with both

inflation and high taxes and cost the economy millions of dollars. Although inflation peaked in 1974 at 56 percent, it still lingered into 1977 at a crippling level of 38.8 percent. Socially, the immigration slump from 55,888 in 1972 to 20,000 in 1976, contributed to the unrest within Israel (69:25).

Finally, Labor's apparent weakness in dealing effectively and firmly with the Arabs, especially with respect to the return of the occupied territories, had a significant effect on the outcome of the spring election. President Carter's repeated U.S. support for a Palestinian homeland and his slow response to continued financial and military aid was charged against Shimon Peres and the Labor party (69:26).

These four reasons brought Menahem Begin to power and add additional uncertainty to the proposed peace talks at Geneva. Begin's victory has been heralded as "the triumph of a superhawk" (69:22) and raises great doubts in the minds of Arab leaders as to whether or not a peaceful Middle East solution can be found, since Begin's stand does not include the return of all occupied territories to the Arabs. Mr. Begin is a hard-liner who considers the West Bank and the Gaza Strip to be part of historic Israel. He once

headed the Irgun Zvai Leumi, a Jewish terrorist organization in pre-1948 Palestine which took credit for the bombing of Jerusalem's King David Hotel in 1946 that caused 91 deaths. It was also responsible for the massacre of more than 250 Palestinian men, women, and children in the village of Deir Yassin in 1948 (58:27).

In contrast to the gloom which the political scene in Israel portends, two other political events stand out. The first concerns a report by Representative Lee H. Hamilton, Democrat of Indiana, who heads the International Relations subcommittee on the Near East, in which he states that he is convinced after meeting with Yasir Arafat, the leader of the PLO, that the latter is prepared to accept Israel's existence (3:3). The second event concerns the first meeting between President Carter of the U.S. and Prime Minister Begin of Israel on the 14th of July 1977. In that meeting both leaders:

... agreed that all the issues must be settled through negotiations between the parties based on United Nations Security Council Resolutions 242 and 338 [see Appendix C and D] which all the governments directly concerned have accepted [25:1].

Among other things, Resolution 242 requires Israel to withdraw from occupied territory, although

it does not specify how far to withdraw. Nevertheless, both of these concessions represent positive steps towards a Middle East peace which would reduce Israel's need for U.S. FMS.

However, another event has taken place recently in Israel which may be detrimental to peace--three Jewish nationalist settlements on the occupied West Bank of the Jordan River were granted full legal status by an Israeli cabinet committee (51:1). This action was viewed as an obstacle to peace since it lessens the likelihood that the West Bank could be negotiated at Geneva and be eventually used as a home for Palestinian refugees, as had been the intention of the U.S. peace plan (52:12). The decision was criticized even in Israel because it caused a wave of Arab terrorist bombings throughout the country and because it lessened the chances of a Geneva Middle East conference (8:8).

Another political reality that must be faced by Israel is its growing isolation in the world community. During the 1973 war, the threat of an Arab oil boycott forced the Japanese and most of Western Europe governments to demonstrate a decidedly pro-Arab "tilt." Black Africa also broke off diplomatic relations with Israel at the beginning of the war, ending a friendship which

Israel had developed through technical assistance instituted in the 1950s. Only the U.S. remained loyal to Israel and came to her aid during that war (16:27).

Politically, the price of American friendship may not be cheap. Because of the cost of another war and the impact of another embargo on the U.S. economy, the U.S. may force Israel to the Geneva conference table. The options open to the U.S. to coerce Israel's new leadership into compromising its hawkish stand can be either through military or economic means. The importance of either of these to the survivability of Israel cannot be overemphasized. Without the U.S., Israel virtually stands alone against the Arabs.

An option of a more indirect nature would involve changing the current U.S. tax credit on contributions to Israel by American Jews (69:31). In 1974, the amount contributed by the United Jewish Appeal to Israel was \$600 million (66:114). However, the need for any of these options should not be required. The vast majority of past political problems between the U.S. and Israel, have been ironed out without resorting to the withdrawal of U.S. support. Respect, friendship, and a mutual understanding and trust have laid the

ground work for eventual solution to these and other problems which may arise.

Economic aid, FMS, and security supporting assistance from the U.S. enables Israel to meet its military, economic, social, and political needs. FMS rebuilds the military force structure that provides a viable deterrence against aggression. Economically, U.S. aid appeases the highly distressed citizens of Israel by easing the tax burden and supplementing the import and commodity market. U.S. subsidies, furthermore, allow the Israelis to pursue a course of action that includes both "guns" and "butter." Both policies insure that Israel's bargaining position at the peace talks is a strong one.

Events in the U.S. with Implications on Security Assistance to Israel

This portion of the paper will parallel the structure in the first half of the chapter with the exception that recent developments regarding security assistance to Israel will be reported from the U.S. point of view.

Military. President Carter expressed one of the primary reasons behind FMS to Israel when he said, "And obviously, part of that is to make sure Israel has adequate means to

protect themselves without military involvement of the United States [55:707]."

This lack of military involvement is rapidly becoming a trademark of U.S. foreign policy. It stems from the after effects of the Vietnam era in which aid in the form of advisors grew to a complete military commitment to the defense of Vietnam. The final result of that involvement was the loss of many American lives, billions of dollars in aid and equipment, and the face of U.S. military and political leaders in the world arena (57:281-282).

But a Vietnam-type loss is not all that is at stake in the Middle East. Because of the presence of the Soviet Union, the potential for superpower confrontation is extremely great, especially if the U.S. is directly involved in the support of Israel.

However, the Sinai agreement with respect to American technicians, shows the care that has been taken to insure that the chance of direct involvement is minimized. The total number of Americans in the area at any one time cannot exceed 200. The Americans have no military function whatsoever and unlike Vietnam, they are not there to support one party against the other.

They are there in a peacekeeping role exactly analogous to that of the United Nations force (59:821).

As if to dispute this particular line of thought, White House sources announced in July 1977 that a U.S. base in Israel was being considered to reemphasize the U.S. commitment and support of that country (49:1). Such an endeavor would improve the U.S. strategic posture in the Eastern Mediterranean in light of events in Turkey and Greece. However, in terms of FMS to Israel, a U.S. naval base at Haifa would require a large investment by the U.S. and it may not reduce arms sales to Israel appreciably.

Another military action by the Carter administration which should affect FMS to Israel has been the decision to sell Saudi Arabia 60 F-15 fighters (35 more than Israel has). This move is only a tentative one which may be eventually rejected by Congress (39:1). However, if the Saudi sale goes through, Israel may see a very unfavorable tilt in the balance of power in the region and request increased amounts of U.S. FMS.

Economic. The assistance to Israel comes to five-tenths of one percent of the U.S. national budget--and substantially less than that of its GNP (80:168). If the U.S.

support of Israel is taken as given, then the cost to the U.S. of another oil embargo must be weighed against the cost of a lasting peace settlement in the Middle East. In 1973, when the "Yom Kippur" war broke out, the oil embargo cost the U.S. economy somewhere in the vicinity of \$30 billion and " . . . contributed to the most severe recession that the U.S. has experienced in 30 years [81:3]." Another war would cost the U.S. substantially more. Therefore, the five-tenths of one percent given to Israel is a relatively minimal amount of money to spend in an effort to facilitate the search for peace and prevent the outbreak of another war.

Further economic analysis of FMS to Israel indicates that the U.S. economy as a whole benefits from these sales. Using FY1976's level of FMS of \$8.2 billion (11:1), Israel received approximately \$1.7 billion (see Chapter 4) or about 20 percent of the total sales for that year. Keeping that percentage in mind, and using a study conducted by the Budget Analysis Division of the Congressional Budget Office, the effects of FMS on the U.S. economy can be determined.

The study showed that a total ban on FMS would lower the current dollar GNP by \$20 billion or about 0.2 percent. The unemployment rate would be approximately

0.3 percentage points higher than otherwise projected or about 350,000 jobs lower. And the net export would decrease by \$7.5 billion (11:1).

Further investigation showed that,

Overall aerospace exports in 1977, valued at approximately \$8.4 billion will be the largest contributor to this country's balance of trade, accounting for just under \$8 billion after offsetting projected imports [9:85].

Therefore, a deletion of FMS to Israel would not have a great effect on the overall U.S. economy but could adversely influence the U.S. balance of trade and the aerospace industry to a small degree.

In early 1977, the U.S. blocked the sale of several Israeli Kfirs to Ecuador to prevent advanced jet aircraft from being interjected into the Latin American environment. That action was in accordance with the Arms Export Control Act, as amended (see Appendix A), which prohibits the sale of U.S. FMS equipment to a third party without prior U.S. approval (72:248). This resulted in a loss of \$150 million to Israel which had to be compensated by the U.S. through an increase of \$285 million in aid for 1977 (34:1).

Social. The societal problems of Israel have been discussed; however, of equal importance to the survival of

Israel is the changing character of the American society which represents virtually the only friends that Israel has outside of its frontiers. The American people's support has traditionally been unqualified and generous. The Jewish Americans have been especially helpful by fervently voicing their support for Israel through their lobbies, their vote, and their monetary contributions. In New York state, for example, the Jews make up 14 percent of the population and cast between 16 and 20 percent of the vote in a general election, while in New York City they account for one-half of the primary vote though they are one-fifth of the population (1:24-25). Recently, however, both groups appear to be changing. The American Jew showed signs of faltering when Senator Henry Jackson (D-Washington) first proposed his amendment linking preferred trading status for Communist countries, specifically the Soviet Union, to freer immigration policies in those countries. Some American Jews expressed a worry about an anti-Semitic backlash in the U.S. because of this bill. It was feared that it would have worked against the Jewish families in the U.S. (1:26).

American society is also changing as fewer Americans remember the holocaust of WWII and its persecutions. More are getting tired of the entire Middle East

issue, its over-exposure in the news, and the inability of either party to come to terms on a peace agreement. A public opinion poll taken in June 1975 by Burns W. Roper of Roper Reports indicated that six times as many Americans said that their sympathies were with Israel as opposed to the Arab nations, but that figure was still well under one-half of those polled. Another portion of the poll stated that 46 percent of those questioned would give Israel some form of military aid if there was another Arab-Israeli war, while 44 percent would stay out of it entirely and let the Arabs and Israelis work out their problems by themselves. Only 13 percent would commit U.S. troops, even if the survival of Israel were at stake (84:76).

The authors did not conduct any scientific opinion polls during their research effort. However, while interviewing U.S. Government officials in Washington, D.C., about Israel, they did observe what appeared to be a resignation to, and even some resentment of Israeli demands that continue to be met without question. The resentment stems from the feeling that Israel expects to receive any equipment it requests, without compensation. Evidence of this attitude was said to be typified by Israel's reluctance to share intelligence

information with the U.S., by the lack of shared war plans and war games between the U.S. and Israel in the Middle East, and by the alleged pressure that the Jewish lobby exerts to have those government officials whom they do not consider to be pro-Israel relieved.

The changing mood of America towards Israel has not escaped Prime Minister Begin. He has convinced former Foreign Minister Abba Eban to undertake a speaking tour to convince the American public that Israel is not to blame for the Middle East diplomatic difficulties (52:6). Hence, the internal social conditions in both Israel and the U.S. can pose a serious threat not only to the survivability of Israel but also the status of the American Jew in the United States. All of which is bound to be reflected in the amount of assistance approved for Israel.

Political. The success of the Israelis in obtaining U.S. aid can be attributed to a politically active Jewish lobby and community. The lobby has received a considerable amount of attention over the past few years because of its ability to consistently press pro-Israeli legislation through the U.S. Congress.

On the television program, "Face the Nation" in 1973, then-Senator J. William Fulbright, Democrat from Arkansas and Chairman of the Senate Foreign Relations Committee, said " . . . the Israelis control the policy in the Congress and the Senate " This statement based on his experience referred to the fact that on virtually all bills involving Israel, the Israelis had 75-80 votes in the Senate. He cited the Jackson amendment as a case in point (65:8-9). His comments were later substantiated by Secretary of State Henry Kissinger during the Sinai agreements when the secretary said,

On May 21, 1975, 76 Senators wrote a letter to the President with which I am sure the members of this committee are familiar, in which they pointed out that the Congress expects to receive a foreign aid request for fiscal year 1976, and that we trust that your recommendations will be responsive to Israel's urgent military and economic needs [81:8].

The American Israel Public Affairs Committee, the only group formally registered to lobby on behalf of legislation affecting Israel, has a twenty-man staff and operates on a \$400,000 budget. Its budget is funded through contributions from its 15,000 members located throughout the U.S. (16:61). Their success comes from persuasive phone calls and continuous distribution of information about Israel to Congressmen and other

policy-makers. Their activity, however, is legitimate and an excellent example of the machinery of democracy in action (1:26).

President Carter observed that machinery in July 1977 when he felt it necessary to clarify to the American Jewish community what Vice-President Walter Mondale said in an address before the World Affairs Council of Northern California on the previous month. In that address Vice-President Mondale declared that America has " . . . a unique and profound relationship with the State of Israel . . . ," that " . . . Israel could return to approximately the borders that existed prior to the war of 1967," and that the U.S. does " . . . not intend to use [its] military aid as pressure on Israel [48:2-5]." The phrase regarding a return to pre-1967 borders was misunderstood by the Jewish community and criticism of President Carter ensued. President Carter then summoned 53 Jewish leaders to the White House where he declared his "unswerving commitment" to Israel and called it

. . . part of our national consciousness, part of my personal religious views, part of my responsibility as President and part of the totality of American life [52:6].

This type of commitment from the highest authority in the U.S. insures that the flow of FMS to Israel from the U.S. will continue. Furthermore, it can be noted that political events in the U.S. have had and still continue to have a significant effect on FMS to Israel.

In summary, the military, economic, social, and political aspects of U.S. and Israel were analyzed in this chapter to determine their impact on U.S. FMS to Israel. For Israel, FMS represents stability and strength; without it the military, economic, social, and political conditions within Israel would deteriorate rapidly. As for the U.S., the decision regarding FMS is not as crucial as it is for Israel.

The developments mentioned in this chapter, underscore the danger in making long-range predictions about the Middle East. Of particular significance have been the recent changes in the political leadership of the U.S. and Israel. It appears to be too early to assess the impact of the new administrations in Washington and Tel-Aviv as to the magnitude and support of the U.S. security assistance programs. However, unless there is a drastic reversal in the Carter administration's position, the flow of FMS to Israel will not be used as leverage in setting up a Geneva conference, regardless

of the stance which Israel may take prior to participating in that conference. As Vice-President Walter Mondale stated,

We do not intend to use our military aid as pressure on Israel. If we have differences over military aid--and we may have some--it will be on military grounds or economic grounds, but not on political grounds. If we have differences over diplomatic strategy--and that could happen--we will work this out on a political level. We will not alter our commitment to Israel's military security [48:5].

Chapter 6

CONCLUSIONS AND RECOMMENDATIONS

Up to this point in the thesis, the primary concern has been the compilation and presentation of data on U.S. FMS to Israel. Now, the authors will draw their conclusions and recommendations regarding security assistance to Israel based on the aforementioned data. Again, it must be stressed that this analysis represents solely the authors' opinions and evaluations and does not necessarily reflect the policies of the U.S. Government or its agencies.

Conclusions

The conclusions of this study will be presented by answering the research questions that were posed in Chapter 1. Before attempting to answer the overall research question, however, the secondary research questions will be addressed.

Research question 1. Under what historical context did FMS to Israel develop?

The modern state of Israel came into being in 1948 when the Israelis defeated the Arabs in the War of Independence. Since then it has been involved in four

other wars, including the war of attrition, and remains in a constant state of readiness for possible wars which may occur in the future. The ability to defend itself throughout this period has been based on military superiority achieved by training and equipment, and obtaining and maintaining defensible borders. Prior to 1967, all Israeli cities and military installations were within range of Arab artillery and an enemy tank column was capable of cutting across the entire nation within minutes. With the incorporation of the occupied territories into its defense structure in 1967, Israel obtained what it considered to be defensible borders. These territorial gains coupled with qualitatively superior arms purchased from the U.S. enabled the Israelis to build and maintain a viable defense structure in the late 1960s.

Other factors which have limited Arab aggression against Israel have been the mistrust or lack of cooperation among Arab nations in dealing with the Israeli question and the ability of Israel to absorb more rapidly than the Arabs the advanced technologies of the 20th century. However, qualitative superiority cannot in itself guarantee success against a quantitatively superior force such as that maintained by the Arabs.

Since Israel is unable to supply all of its own needs, it has turned to the U.S. for additional military equipment to maintain the balance of power in the Middle East. Security assistance was the U.S. response to Israel's needs and it reinforced long-standing U.S. Middle East policy emphasizing Israel's survival.

Therefore, because of its size, lack of natural resources, strategic location, hostile neighboring countries, and lack of alliances and agreements with other nations, Israel became dependent upon the U.S. for its military needs which were provided through security assistance.

Research question 2. What are Israel's force structure and defense strategies, and how do these relate to FMS?

The IDF is structured along the traditional service lines: air force, army, and navy. The emphasis in weaponry has been on obtaining the most sophisticated equipment available that is consistent with their highly mobile strike force concept. The Israelis have accepted a 3 to 1 unfavorable balance in arms which has been partially offset through the training of military personnel who are more literate and familiar with technology than their Arab counterparts. Parity is also achieved

through Israel's military planning and organization which incorporates a devastating first strike and a credible second strike capability. The strategies, the unfavorable arms balance, and the need for modern and technologically sophisticated weapons have caused Israel to become dependent on Western technology and, hence, on FMS.

Research question 3. How did the U.S. FMS program to Israel evolve and what has been its annual value?

The U.S. did not become significantly involved with FMS, or security supporting assistance programs to Israel, until after the 1967 war, at which time most Western European arms suppliers began curtailing their sales to Israel. U.S. military support of Israel has been unqualified since then, and actually reached enormous levels in the aftermath of the 1973 war. The evolution of that support can be attributed in large part to the moral commitment that the U.S. feels it has toward the survival of Israel. Other important factors have been: (1) the strategic value that Israel's position has at the eastern end of the Mediterranean, as a gateway to the Persian Gulf and Indian Ocean (17:14), (2) the similarity which the Jewish culture has to the American Judeo-Christian culture, and (3) the relative influence which the Jewish community has in U.S.

politics. These factors coupled with Israel's increasing alienation from the world community have been instrumental in raising the value of U.S. FMS. The actual annual value of the FMS program was presented in Chapter 4.

Research question 4. What is the future of the U.S. security assistance to Israel?

President Carter is continuing the pattern established by his immediate predecessors regarding security assistance to Israel; that is, allow Israel to acquire those materials that it may need to insure its survivability. There is at least \$3 billion in equipment in the pipeline to Israel and more continues to be requested (52:6). Additionally, as the U.S. begins to sell arms to the Arabs, the supply to Israel will also have to increase. Finally, as the possibility for a permanent peace in the Middle East increases through an impending Geneva conference, the need for the U.S. to insure that a perceived balance of power exists in the Middle East also increases. That balance of power can only be maintained through continued security assistance to Israel, although perhaps, at a reduced and more stable rate.

Overall research question. What has been the U.S. commitment to Israel especially in terms of FMS, economic aid, and security supporting assistance?

The monetary U.S. commitment to Israel has been substantial and it has been detailed in Chapter 4. It presently amounts to \$11.9 billion of which 78 percent has been provided since 1973. However, as indicated in the secondary research questions, the U.S. commitment to Israel extends beyond mere dollars to moral, social, and economic considerations. In fact, in 1973, the U.S. indicated the magnitude of this commitment when it signaled the Soviet Union that it was prepared to go to war over the possibility of Soviet intervention on behalf of the Arabs (59:767-770).

This type of commitment is both dangerous and expensive. The danger lies in a possible confrontation with the Soviet Union where a misperception could result in a general thermo-nuclear war. The expense relates to the billions of dollars that the U.S. makes available to Israel for purchases of arms; an expense which a nation of Israel's size and economic capability is unable to afford. It is the authors' concerted opinion that Israel, which already severely taxes its population and is overburdened by its defense expenditures, will never be able to repay the loans obtained from the U.S. That is not to say that the expense has been a bad investment.

Indeed, it may prove to be a cheap price to pay for stability and peace in the Middle East.

Recommendations

The problem that exists in the Middle East, in the opinion of the authors, is one that has ramifications for the whole world. It is a complex problem that has been addressed by some of the most erudite and knowledgeable persons of all parties directly involved. Because there are so many interests involved, and because the issue touches on some very sensitive political and nationalistic points, the resolution of the problem will not come easily. However, the authors do feel that there are certain steps that must be taken by the U.S. while it attempts to resolve the matter in a peaceful manner. The authors offer the following points to be considered for the development of a rational and clearly perceivable policy toward the Middle East:

1. The U.S. must decide if it is ultimately committed to the survival of the state of Israel. Through effective diplomatic efforts the choice for the U.S. will hopefully never have to be put in terms of " . . . either Israel or oil" However, such a polarization of choices may eventually ensue and the U.S. must be prepared to make its decision now, for all of its actions

hinge on the overall stance reflected by that general decision.

2. If the U.S. cannot honestly abide by a decision to commit itself to Israel's survival in the foreseeable future, then it must reappraise the need for the amount of FMS and security supporting assistance that it presently provides to Israel.

3. If, however, the U.S. is indeed committed to the survival of the state of Israel, then it must accept the responsibility for providing the security assistance that Israel will need for its continued existence.

The topic of FMS credits and security supporting assistance is a multi-faceted one that involves many variables, of which quite a few are easily misinterpreted. The authors of this study restricted themselves to analyzing the topic principally from a military viewpoint. However, the opportunity exists to delve into this topic from a purely economic, political, or social aspect.

The authors' main purpose was to compile into one document as much of the unclassified information on U.S. FMS, economic aid, and security supporting assistance to Israel, as possible. As such, no effort was made to pass judgment on the wisdom of that assistance. It is up to the reader to evaluate the facts presented and formulate his own opinion.

Since the subject of this study is extremely volatile and prone to sudden changes and re-evaluation by policy-makers, the authors recommend that it be continually updated.

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APPENDIX A

MAJOR RESTRAINTS ON U.S. FMS

APPENDIX A

(1) Sales will be approved only when consistent with U.S. foreign policy interests, foreign aid purposes as embodied in the FAA, the extent and character of the military requirement, the economic and financial capability of the purchases, with particular regard being given, where appropriate, to proper balance among such sales, grant military assistance and economic assistance as well as to the impact of the sales on social and economic development programs and on existing or incipient arms races (Sec. 1).

(2) Sales and credit guaranties (Secs. 21, 22, 23 and 24) shall not be approved to arm military dictators who are denying the growth of fundamental rights or social progress to their people. The President may waive this limitation when he determines it would be important to the security of the United States (Sec. 1).

(3) The Secretary of State shall be responsible for determining whether there shall be a sale to a country and the amount thereof, and whether these shall be delivery or other performance under such sale or export to the end that sales and exports are integrated with other U.S. activities and the foreign policy of the U.S. is best served thereby (Sec. 2(b)).

(4) The President must determine the eligibility of the prospective purchaser on the basis that sales will strengthen U.S. security and promote world peace (Sec. 3(a)(1)).

(5) The purchaser must agree not to transfer title to, or possession of, any defense article or related training or other defense service without prior U.S. consent; and the President must report to the Congress before such consent is given (Sec. 3(a)(2)).

(6) Sales, credits, and guaranties shall be cut off for 1 year to any country which seizes or takes into custody or fines U.S. fishing vessels for

engaging in fishing more than twelve miles from the coast of that country, unless the President waives the cut off as important to U.S. security or receiving reasonable assurances from the country involved that future violations will not occur and promptly so reports to the Congress (Sec. 3(b)).

(7) Sales may be made only for purposes of internal security, legitimate self defense, civic action, or regional or collective arrangements consistent with the United Nations (U.N.) Charter, or requested by the U.N. (Sec. 4).

(8) No FMS credits or guaranties shall be extended to less developed countries--except Greece, Turkey, Iran, Israel, Republic of China, Philippines, and Korea--to buy sophisticated weapons, such as missiles and jet aircraft for military purposes, unless the President determines that such financing is important to the U.S. national security (Sec. 4).

(9) Sales will be made for the FMS credits repaid only with U.S. dollars (Secs. 21, 22 and 23).

(10) FMS credits must be repaid within twelve years after the delivery of the defense articles or the rendering of the defense services (Sec. 23).

(11) Financing of sales of defense articles and defense services by any individual, corporation, partnership or other judicial entity doing business in the United States (excluding U.S. Government agencies other than the Federal Financing Bank) may be guaranteed by the USG. Fees shall be charged for such guarantees. An amount equal to 10% of the principal amount of the contractual liability under guaranty shall be set aside as a reserve from funds appropriated under the Act (Sec. 24).

(12) Export-Import Bank financing of sales to economically less developed countries is prohibited (Sec. 32).

(13) A ceiling on grant aid and credit sales combined (excluding training) shall not exceed \$40,000,000 in each fiscal year for African countries. The President may waive this provision when he determines it to be important to the security of the United States (Sec. 33).

(14) FMS credit and guaranty standards and criteria, e.g., interest rates, shall be established by the President in accordance with the foreign, national, security, and financial policies of the U.S. (Sec. 34).

(15) Further sales, credits, and guaranties shall be terminated to any economically less developed country which diverts economic aid, or its own resources to unnecessary military expenditures to a degree which materially interferes with its development (Sec. 35).

(16) The munitions licensing requirement controls the export and import of arms, ammunition, and implements of war, including technical data relating thereto remains in effect (Sec. 414, Mutual Security Act of 1954, as amended).

(17) Cash received from FMS and from repayments of FMS credits shall not be used for financing new credits or guaranties (Sec. 37).

(18) Arms control consequences must be taken into consideration when evaluating any FMS sale (Sec. 42(a)(3)).

(19) FMS funds may be used for procurement outside the U.S. only if the President determines that such procurement will not result in adverse effects upon the U.S. economy or the industrial mobilization base (Sec. 42(c)).

(20) Provisions of Atomic Energy Act and 10 USC 7307 (requiring separate legislation for major ship loans and sales) are unaffected by the FMSA (Sec. 44).

(21) Consistent with its resources and the situation prevailing in-country, the MAAG is

responsible for supervising and reporting on the utilization by the foreign country of defense articles and services acquired through FMS.

(22) Any foreign country which hereafter uses defense articles or defense services furnished under the FMSA, in substantial violation of any provision of that Act or any agreement entered into under that Act, shall be immediately ineligible for further cash sales, credits or guarantees until such time as the President determines that such violation will not recur, and that, if such violation involved the transfer of sophisticated weapons without the consent of the President, such weapons have been returned to the country concerned (Sec. 3c and 3d).

(23) Sale of defense articles, defense services or training to foreign organizations or units, including foreign police forces, will not be made unless such organizations or units are a part of the national defense forces under the direction and control of the Ministry of Defense. Any requests for exceptions to this policy should be referred to DSAA for decision. Also, prior approval of DSAA is required for the sale of defense articles, defense services or training to foreign organizations or units that are under the direction and control of the Ministry of Defense if they are engaged in on-going civilian police functions [87:B-2-B-4].

APPENDIX B

ISRAEL

ARMED SERVICES LTD.

Elint systems, communications, air
transportable shelters, and special
purpose electronic systems

ARMOR LTD.
Tel Aviv

Electronic aviation machinery

AERO EQUIPMENT INDUSTRIES LTD.
Tel Aviv

Aircraft oxygen, electronic instruments,
air conditioning and fuel systems

APPENDIX B

ARMS SUPPLIERS TO ISRAEL

ARMED SERVICES LTD.
Tel Aviv

ARMED LTD.

Computerized test equipment

ECI

Communications and control equipment

ARMED LTD.

Security and rescue equipment

ARMED LTD.

Armored, armored and electronic systems

APPENDIX B

ISRAEL

AEL ISRAEL LTD.

Elint systems, communications, air
transportable shelters, and special
purpose electronic systems

AMCORAM LTD.

Holon

Precision aviation machinery

AERO EQUIPMENT INDUSTRIES LTD.

Tel Aviv

Aircraft oxygen, electronics, instruments,
air conditioning and fuel systems

BET SHERMESH ENGINES LTD.

Bet Shermesh

Gas turbines

CLAL INDUSTRIES LTD.

Tel Aviv

BETA LTD.

Computerized test equipment

ECI

Communications and control equipment

FRANZ LEVI LTD.

Safety and rescue equipment

MIKUN BINIAN LTD.

Arming, zeroing and maintenance systems

ELBIT COMPUTERS LTD.

Advanced Technology Center
Haifa

Airborne, ship and ground computer systems

FEDCO ISRAEL LTD.

Herzlia

Airframe components

ISCAR BALDES LTD.

Naharia

Compressor and turbine blades

ISRAEL AIRCRAFT INDUSTRIES

Tel Aviv

AIRCRAFT MANUFACTURING DIVISION

Aircraft assembly and manufacture of airframe structures, production tooling and vehicle prototypes

BEDEK AVIATION DIVISION

One-stop maintenance, retro-fit repair and restoration off-shore support of civil and military aircraft, power plants and accessories

ELTA ELECTRONICS INDUSTRIES LTD.

Air, land, sea radars and communications systems and equipment--micro-electronics, data terminals and medical electronics

ENGINEERING DIVISION

Research, design, development and test of complete military & civil airframes, avionics, systems and their associated support equipment

GOLAN METAL & ELECTRONICS INDUSTRIES LTD.

Manufacture of metal and electronic sub-systems

MBT WEAPON SYSTEMS

Design, development, manufacture and support of complete missile--gun ordnance--weapons delivery controls and other security systems

ORLITE ENGINEERING LTD.

Rigid and semi-rigid reinforced plastic products, aircraft structures, aircraft armored vehicle crewmen and infantry helmets, special containers and plastic weapons magazines

PML PRECISION MECHANISMS LTD.

Electro-mechanical actuators, servo systems, gear driven trains, other high precision gears, manufacture of exotic timing mechanisms and clinometers

RAMTA SYSTEMS AND STRUCTURES

Surveillance and combat vehicles, fast patrol boats, materials loading and handling equipment, custom structures manufacturing

SHL SERVO HYDRAULICS LOD

Powered flight control systems, landing gears, brake systems, retracting mechanisms, heavy vehicle power packs, standard and special test stands.

TAMAM PRECISION INSTRUMENT INDUSTRIES

Air data computers, gyros, airborne gunsights, radio compass indicators, inertial components, servo stabilization systems and mechanisms. A full range of synchros, resolvers, motors, custom-built test equipment and hydrometric instruments

TEUD TECHNICAL PUBLICATIONS

Preparation and production of technical publications and sales aids

TURBOCHROME LTD.

Reconditioning, longlife gas diffusion and other
coatings of engine blades and hot sections

ISRAEL MILITARY INDUSTRIES

Tel Aviv

Explosives, propellants, aircraft equipment,
weapons and weapon systems

ISRAEL SHIPYARDS, LTD.

Haifa

RESHEF-Class missile boats

KOOR ELECTRONIC & ELECTRONICS LTD.

Tel Aviv

ELTEL LTD.

Petah Tikva

Printed circuit boards

MEEDA SCIENTIFIC INSTRUMENTATION

Tel Aviv

Portable test sets

PENGUIN ELECTRONIC INDUSTRIES

Natanya

Converters, navigational equipment, special
purpose computers, airborne intercom systems

TEDEA LTD.

Tel Aviv

Antenna rotators and controllers, electronic
weighing systems, load-cell transducers

KOOR METALS LTD.

Holon

AGAN ENGINEERING WORKS

HAMAT ENGINEERING WORKS

VULCAN ENGINEERING WORKS

Hangars, repair shops, military shelters,
structural components, and subassemblies
for aircraft and helicopters

MOTOROLA ISRAEL LTD.

Tel Aviv

Integrated communications control systems

NIK LTD.

Tel Aviv

Airframe and engine bolts

RAFAEL

Armament Development Authority
Haifa

Shafrir air-to-air missiles; David artillery
computer; Mahat weapon delivery system

TADIRAN

Israel Electronics Industries, LLtd.
Tel Aviv

UHF-AM tactical radio communications; communi-
cations shelters

NORTHERN IRELAND

SHORT BROTHERS AND HARLAND LTD.

Belfast, Northern Ireland

Blowpipe surface-to-air missile

UNITED KINGDOM

ROYAL ORDNANCE FACTORIES

Centurion tanks

VICKERS LTD. SHIPBUILDING GROUP

Barrow, England

IKL/Vickers 500-ton class submarines

UNITED STATES

AERONUTRONIC FORD
Newport Beach, California

Sidewinder air-to-air missiles

BELL HELICOPTER
Fort Worth, Texas

AH-1 Huey Cobra helicopters

BOEING COMPANY
Vertol Division
Morton, Pennsylvania

CH-47 helicopters

CHRYSLER CORPORATION
Detroit, Michigan

M-60 series tanks

COLT INDUSTRIES
Hartford, Connecticut

M-16 rifles

FMC CORP.
San Jose, California

M-113 armored personnel carriers
XR-311 reconnaissance vehicles

GENERAL DYNAMICS CORP.
Pomona, California

Redeye surface-to-air missile
Standard ARM air-to-surface missile;
Stinger surface-to-air missile

GENERAL ELECTRIC
Burlington, Vermont

Vulcan air defense system

Utica, New York

Sidewinder air-to-air missiles

GENERAL MOTORS CORP.

Detroit, Michigan

6V53 diesel engines

GRUMMAN AIRCRAFT ENGINEERING CORP.

Bethpage, New York

E-2C electronic aircraft

HONEYWELL CORP.

North Hopkins, Minnesota

Mk46 Mod 2 torpedoes

HUGHES AIRCRAFT CORP.

Culver City, California

TOW surface-to-surface missile

Canoga Park, California

Maverick air-to-surface missile

LOCKHEED-GEORGIA CO.

Marietta, Georgia

C-130 Hercules transport aircraft

LTV CORP.

Warren, Michigan

Lance surface-to-surface missile

MAXON ELECTRONICS CORP.

Great River, New York

Bullpup air-to-surface missile

MCDONNELL DOUGLAS CORP.

Douglas Aircraft Division
Long Beach, California

A-4 Skyhawk attack aircraft; F-4 fighter aircraft;
F-15 Eagle fighter aircraft; RF-4 reconnaissance
aircraft

Santa Monica, California

Harpon air-to-surface missile

St. Louis, Missouri

Dragon surface-to-surface missile

RAYTHEON COMPANY

Bedford, Massachusetts

Sparrow air-to-air missiles

Lexington, Massachusetts

Hawk surface-to-air missile

TEXAS INSTRUMENTS, INC.

Dallas, Texas

Shrike air-to-surface missile

[21:1-4].

APPENDIX C

UNITED NATIONS RESOLUTION 242

APPENDIX C

SECURITY COUNCIL RESOLUTION 242
November 22, 1967

The Security Council,
Expressing its continuing concern with the grave situation in the Middle East,
Emphasizing the inadmissibility of the acquisition of territory by war and the need to work for a just and lasting peace in which every state in the area can live in security,
Emphasizing further that all member states in their acceptance of the Charter of the United Nations have undertaken a commitment to act in accordance with Article 2 of the Charter.

1) Affirms that the fulfilment of Charter principles requires the establishment of a just and lasting peace in the Middle East which should include the application of both the following principles:

- i) Withdrawal of Israeli armed forces from territories occupied in the recent conflict;
- ii) Termination of all claims or states of belligerency and respect for and acknowledgement of the sovereignty, territorial integrity and political independence of every state in the area and their right to live in peace within secure and recognized boundaries free from threats or acts of force;

2) Affirms further the necessity

- a) For guaranteeing freedom of navigation through international waterways in the area;
- b) For achieving a just settlement of the refugee problem;
- c) For guaranteeing the territorial inviolability and political independence of every state in the area, through measures including the establishment of demilitarized zones;

3) Requests the Secretary General to designate a special representative to proceed to the Middle East to establish and maintain contacts with the states concerned in order to promote agreement and

assist efforts to achieve a peaceful and accepted settlement in accordance with the provisions and principles in this resolution;

4) Requests the Secretary General to report to the Security Council on the progress of the efforts of the special representative as soon as possible [10:Appendix A].

APPENDIX D

SECURITY COUNCIL RESOLUTION 338
October 25, 1973

The Security Council

1) Calls upon all parties to the present fighting to cease all firing and terminate all military activity immediately, no later than 12 hours after the moment of the adoption of this decision, in the south, they now occupy.

2) Calls upon the parties concerned to begin immediately after the cease-fire the implementation of Security Council Resolution 242 (1967) in all its parts;

3) Decides that, immediately and concurrently with the cease-fire, negotiations shall begin between the various concerned States on the basis of the principles set forth in paragraph 2 of its resolution 242 (1967) in order to achieve a lasting peace in the Middle East.

APPENDIX D

UNITED NATIONS RESOLUTION 338

APPENDIX D

SECURITY COUNCIL RESOLUTION 338
October 22, 1973

The Security Council

- 1) Calls upon all parties to the present fighting to cease all firing and terminate all military activity immediately, no later than 12 hours after the moment of the adoption of this decision, in the positions they now occupy.
- 2) Calls upon the parties concerned to start immediately after the cease-fire the implementation of Security Council Resolution 242 (1967) in all of its parts;
- 3) Decides that, immediately and concurrently with the cease-fire, negotiations start between the parties condemned under appropriate auspices aimed at establishing a just and durable peace in the Middle East [10:Appendix B].

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